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November 15, 2017

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Subject: Annual Performance Evaluation Report, 2017
Interim Groundwater Containment Remedy
Omega Chemical Superfund Site, Operable Unit 1, Whittier, California

Dear Mr. Praskins:

Enclosed for your review is the 2017 Annual Performance Evaluation Report for the Interim Groundwater Containment Remedy, Omega Chemical Superfund Site, Operable Unit 1, Whittier, California.

Please contact me if you have any questions.

Sincerely,

Omega Chemical Site PRP Organized Group



Edward Modiano
Project Coordinator



Jaime Dinello, PE
Project Manager

cc: Don Indermill, DTSC



NOVEMBER 15, 2017

INTERIM GROUNDWATER CONTAINMENT REMEDY
ANNUAL PERFORMANCE EVALUATION REPORT
THIRD QUARTER 2017
OMEGA CHEMICAL SUPERFUND SITE, OU-1

Prepared for:

Omega Chemical Site
PRP Organized Group
(OPOG)

Prepared by:

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The information contained in this document has received the appropriate technical review and approval. This acknowledgement is made in lieu of all warranties, either expressed or implied. The activities outlined in this report were performed under the supervision of a California Registered Professional.

Reviewed and Approved by:

Jaime Dinello

Jaime Dinello, P.E., License No. C73978, Expires 06/2019
Project Engineer

de maximis, inc.

INTERIM GROUNDWATER CONTAINMENT REMEDY OMEGA CHEMICAL SUPERFUND SITE, OU-1

Annual Performance Evaluation Report Third Quarter 2017

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ACRONYMS AND ABBREVIATIONS

bgs	Below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act*
CD	Consent Decree
DPE	Dual Phase Extraction
EE/CA	Engineering Evaluation/Cost Analysis
EW	Extraction well
GCR	Groundwater Containment Remedy
gpm	Gallons per minute
HRA	Health Risk Assessment
OM&M	Operation, Maintenance, and Monitoring
OPOG	Omega Chemical Site PRP Organized Group*
OU-1	Operable Unit 1
PSVP	Performance Standards Verification Plan
RAOs	Removal Action Objectives
RAP/PDR	Removal Action Plan and Preliminary Design Report
SCAQMD	South Coast Air Quality Management District
SDLAC	Sanitation Districts of Los Angeles County
USEPA	United States Environmental Protection Agency*
VOC	Volatile Organic Compound
VGAC	Vapor Phase Granular Activated Carbon

*These acronyms are assumed to be known to the reader and are not spelled out in the report.

INTERIM GROUNDWATER CONTAINMENT REMEDY

OPERABLE UNIT 1 OMEGA CHEMICAL SUPERFUND SITE

Annual Performance Evaluation Report

Third Quarter 2017

1. INTRODUCTION

Operable Unit 1 (OU-1) of the Omega Chemical Superfund Site is defined as the area of soil and groundwater contamination at the former Omega Chemical property located at 12504 and 12512 Whittier Blvd, Whittier, California, and extending in a downgradient direction to approximately 100 feet southwest of Putnam Street, Whittier, California (Figure 1). This annual performance evaluation report has been prepared on behalf of OPOG to comply with the February 2001 Consent Decree (CD) No. 00-12471 between the USEPA and OPOG (USEPA, 2001). The CD required OPOG to conduct an Engineering Evaluation/Cost Analysis (EE/CA) to identify and recommend a groundwater containment remedy (CDM, 2005). USEPA selected the remedy recommended in the EE/CA via the September 2005 Removal Action Memorandum (USEPA, 2005). As stated in this action memorandum, the primary goal of the selected remedy is to contain the highest levels of contamination dissolved in groundwater within OU-1, so that the contamination does not migrate and contribute to the downgradient regional groundwater plume. To achieve this goal, the OU-1 Groundwater Containment Remedy (GCR) was installed and began operating in 2009.

2. REPORT PURPOSE AND ORGANIZATION

This report complies with the requirements in the Performance Standards Verification Plan (PSVP), Operations, Maintenance, and Monitoring (OM&M) Manual, and Section IX of the CD by presenting data collected during the quarter and providing evidence that the GCR is compliant with the OU-1 Groundwater Removal Action Objectives (RAOs). This report contains the following general content:

- Description of the OU-1 Groundwater RAOs (Section 3);
- Description of the OU-1 GCR (Section 4);

- A discussion of groundwater containment monitoring data and compliance with the containment RAO (Section 5);
- Summary of GCR system operational monitoring (Section 6);
- Overall summary assessment of system operations and recommended changes or modification to the system (Section 7); and,
- Planned activities for the next quarter (Section 8).

3. OU-1 GROUNDWATER REMOVAL ACTION OBJECTIVES

The OU-1 Groundwater RAOs established as performance standards in the 2001 CD are as follows:

- Achieve vertical and lateral hydraulic containment of groundwater contamination within OU-1 (primary documentation of such is via piezometric monitoring); and,
- Meet specified air emissions standards and groundwater treatment standards appropriate to the treated water end use.

4. DESCRIPTION OF THE OU-1 GROUNDWATER CONTAINMENT REMEDY

The GCR is implemented using a system of five groundwater extraction wells within the Putnam Street right of way that form a hydraulic barrier perpendicular to the primary flow pathway for downgradient contaminant migration from the Omega property. The GCR also includes a groundwater treatment system (GWTS), infrastructure, and an associated monitoring well network. The GCR became operational in July 2009. The primary components of the GCR include the following (see Figure 1):

- Five hydraulic containment extraction wells (EW-1, EW-2, EW-3, EW-4, and EW-5) that are designed to form a barrier to groundwater flow from the former Omega property, past the south-western boundary of OU-1;
- The GWTS, including an air stripper, two vapor phase granular carbon (VGAC) vessels, and conveyance piping that are used to convey and treat extracted groundwater and air stripper vapor emissions for discharge; and,

- A network of eleven groundwater monitoring wells and 4 piezometers that are used for data collection points to assess the performance of the GCR.

The GCR operates 24 hours per day, 365 days per year, except for periods of routine or required maintenance. In accordance with the approved Removal Action Plan and Preliminary Design Report (RAP/PDR), the groundwater extraction wells target the water table aquifer, which extends to approximately 90 feet below ground surface (bgs) (CDM, 2005a). This is the target extraction zone for containment.

The air stripper treats extracted groundwater by transferring VOCs from the groundwater into the vapor phase, creating a VOC-laden vapor stream which is treated by the two VGAC vessels in series (a primary vessel and a secondary vessel), prior to emission to the atmosphere. Treated groundwater is discharged into the Sanitation Districts of Los Angeles County (SDLAC) sewer system, and is monitored in accordance with a SDLAC industrial waste permit (renewed on a five year basis with the most recent renewal issued in August 2017).

Treated vapor is monitored in accordance with requirements established with the South Coast Air Quality Management District (SCAQMD) Health Risk Assessment (HRA) (CDM Smith, 2015). Additional details regarding the GWTS equipment and documentation are available in the OM&M Manual (CDM, 2010).

In addition to the above infrastructure, monitoring wells and piezometers specified in the PSVP are used to collect piezometric and water quality data to demonstrate compliance with the OU-1 containment RAO (Figure 1) (CDM, 2007).

5. CONTAINMENT RAO COMPLIANCE MONITORING AND ANALYSIS

Groundwater data are collected and evaluated to demonstrate compliance with the containment RAO as described below.

- Quarterly piezometric data from the PSVP-specified monitoring locations are plotted to illustrate that groundwater flow is toward the pumping wells (CDM, 2005a). According to the CD, these data provide the primary documentation of containment (USEPA, 2001).
- Semi-annual water quality data from PSVP-specified monitoring locations are plotted on time-series charts to show concentration trends (CDM, 2007).

- Annually, concentration trends at downgradient wells OW-9 and OW-10 are evaluated using the Mann-Kendall test on cumulative historical PCE, TCE, and 1,4-dioxane concentrations, and over the most current three-year period (OPOG, 2016). Effective capture of the up-gradient plume is shown by stable (no trend) or decreasing concentrations (CDM, 2007).
- Annually, a particle tracking figure that simulates the hydraulic capture zone within the OU-1 boundary is prepared from the updated analytical model (CDM, 2007). The simulated capture zone is used to support the piezometric capture analysis.

This report provides the annual summary and evaluation to support the containment RAO. The results are presented below.

5.1. QUARTERLY PIEZOMETRIC MONITORING

Quarterly piezometric data were collected and subjected to analysis as stated above. Attachment A (Quarterly Groundwater Containment Review, CDM Smith, October 2017) provides an analysis of the piezometric conditions observed during the third quarter 2017. As discussed therein, and as demonstrated by Figure A-1, horizontal containment of OU1 groundwater continues to be achieved. It is also noted that the regional drought conditions and the pumping from OU-1 DPE wells upgradient of Putnam Street have reduced water levels locally to below the pump intake of some GCR extraction wells.¹ The combination of all these factors has essentially dewatered the aquifer within the OU-1 boundary, and thus is providing horizontal containment. The third quarter PSVP-piezometric data are provided in Attachment B, Table B-1.² Historical PSVP-piezometric data are presented in time series charts in Attachment B, Figures B-1 through B-20.

Vertical containment is also achieved as described in Attachment A. Although a slightly downward vertical gradient is apparent in well pair OW-3A/3B (Figure A-2), there is minimal

¹ Dual phase extraction wells were installed as part of the Full Scale On-Site (OU-1) Soil Vapor Remedy, and are designed to address soil contamination by reducing the water level in vapor extraction wells, exposing more soil to vapor extraction. A secondary benefit of these wells is that they remove groundwater from within OU-1, contributing to groundwater mass removal.

² The 2007 PSVP also listed wells OW-4a and OW-4b (located approximately 500 feet down gradient of the OU-1 boundary) as monitoring locations to determine flow direction and gradients outside the capture zone. As discussed with EPA, these wells were transferred out of the OU-1 program in 2017 and are now monitored under a different program.

hydraulic connection between the shallow extraction zone (A-Zone) and the deeper B-Zone due to the presence of a confining layer which prevents significant downward vertical transport (Figure A-4). The significant head differential between the A-Zone and B-Zone is further evidence of poor hydraulic connection between the zones. See Attachment A for a more detailed discussion.

5.2. SEMI-ANNUAL WATER QUALITY DATA AND ANNUAL MANN-KENDALL ANALYSIS

Concentrations of PCE, TCE, and 1,4-dioxane in samples collected during the third quarter from PSVP-specified wells are presented in Attachment B, Table B-2. Historical data from these locations are presented in time series charts in Figures B-21 through B-36.

The results of the annual Mann-Kendall analysis conducted in accordance with the PSVP on data from observations wells OW-9 and OW-10 are presented in Attachment C. This analysis shows statistically significant declining trends in concentrations over the historical data collection period and over the most current 3-year period for both PCE and TCE. The 1,4-dioxane concentrations at both locations over the historical period are weakly trending downward or stable (no trend). The concentrations of 1,4-dioxane at OW-10 are difficult to evaluate statistically due to multiple non-detect results and variable method reporting limits (see Figure B-35). Overall, in accordance with the PSVP, these results support the conclusion that the GCR is providing effective capture of OU-1 groundwater.

Field forms for the semi-annual monitoring are included in Attachment D. Analytical laboratory reports and data validation reports are included in Attachment E.

5.3. GROUNDWATER MODEL UPDATE AND PARTICLE TRACKING FIGURE

The annual groundwater model update was completed this quarter, and a simulated particle flow figure was prepared for each quarter of the annual reporting cycle. A memorandum summarizing the model update and presenting the simulated flow figures is included in Attachment F. The simulated flow tracking figures confirm the piezometric contours that demonstrate hydraulic capture of OU-1 groundwater.

6. GCR SYSTEM OPERATIONS MONITORING

GCR operational data are collected to support the determination of compliance with the second

RAO (treated vapor emissions and treated groundwater discharge) as well as to conform to the requirements of the PSVP and OM&M Manual.

The following paragraphs provide a summary of key operational parameters and compliance with both vapor phase emissions and aqueous phase discharge requirements.

Key Operational Parameters

All GCR extraction wells (EW-1, EW-2, EW-3, EW-4, and EW-5) were mechanically functional during this quarter. The measured pump run-time, calculated extracted volume, average flow rates per well, and calculated mass removed per well are provided in Attachment G, Table G-1.

The GCR had an operational run time of approximately 98 percent during the quarter, and approximately 92 percent over the previous 12 months (Table 1). Performance summaries for the Air Stripper and VGAC units are provided below.

Air stripper performance:

- 3.9 pounds of VOC mass were removed from treated groundwater by the air stripper during the third quarter, approximately 14.9 pounds over the previous 12 months, and approximately 952 pounds since project inception in 2009 (Table 1, Figure 2);
- VOC concentrations in groundwater prior to and after treatment by the air stripper are summarized in Table 2 for the previous 12 months. These data show continued effectiveness in transferring VOCs from the aqueous phase to the vapor phase for treatment by the VGAC; and,
- Air stripper influent concentrations over time are shown on Figure 3.

VGAC performance:

- VOC concentrations in vapor at the VGAC influent, intermediate point, and effluent are summarized in Table 3 for the previous 12 months. These data show that the VGAC removed VOCs from the VOC-laden vapor flow, transferring it to the activated carbon by adsorption; and,
- VGAC operational conditions during the previous 12 months are summarized in

Attachment G, Table G-2. These data demonstrate that the VGAC and related processes were functioning efficiently and that no carbon changeout was required.³ No carbon changeout occurred during the third quarter, nor during the previous 12 months.

Compliance with Emissions and Discharge Requirements

Although a permit to operate is not required from SCAQMD per CERCLA Section 121, the VGAC is monitored to verify that emissions limits identified in the SCAQMD HRA (CDM Smith, 2015) are being met. There are two types of SCAQMD emissions limits: chemical-specific concentrations in VGAC effluent and VGAC operational conditions. Based on sample results, the VGAC effluent satisfied the SCAQMD HRA chemical-specific limits as well as the SCAQMD operational requirements for flow rate, temperature, and total VOC emissions as indicated by a photo-ionization detector (Table 3, Table G-2). Laboratory analytical reports are provided in Attachment E.

SDLAC issued an Industrial Waste Discharge Permit (No. 20039) in September 2007 for the discharge of treated water from the GWTS to sewer manhole No. MH 18-0271 at Crowndale Street. As required, the permit is renewed on a five-year basis. The first permit renewal was received in 2012 and the second permit renewal was granted on August 8, 2017.

Compliance samples are collected on a quarterly basis from the designated sample collection point, identified as 20039A, and analyzed by a third party representative, currently Test America, as required by the permit. Test America is located in Irvine, California.

The results for quarterly effluent samples collected on August 18, 2017 were provided to SDLAC in the self-monitoring report submitted on October 16, 2017 (Attachment H). The analytical results reported by Test America show that all analytes were within SDLAC permit limits or were non-detectable above reporting limits.

Other groundwater data collected during the quarter, not associated with assessing the

³ The SCAQMD Health Risk Assessment (CDM Smith, 2015) requires that a carbon changeout occur when the efficiency of the primary absorber drops below 90% and the intermediate VOC concentration exceeds 12 parts per million by volume as hexane. Typically, OPOG elects to preemptively changeout the carbon prior to triggering the SCAQMD HRA changeout criteria. OPOG's changeout decision is based on the level of VOC desorption observed at the intermediate point between the VGAC vessels. Analytical results from monthly VGAC monitoring are reviewed when received from the laboratory, and each month a determination is made whether to change or retain the current carbon load.

compliance of the OU-1 GCR with the RAOs, are summarized in Attachment I. This includes operational information from other OU-1 pumping wells such as volume of groundwater extracted this quarter and calculations of mass removed per pumping well.

7. SUMMARY OF MONITORING AND RECOMMENDATIONS

The OU-1 Groundwater Containment Remedy continues to be compliant with the CD RAOs.

Horizontal containment continues to be achieved via pumping within the OU-1 boundary. Pumping from the GCR extraction wells was limited during this quarter due the restricted saturated thickness of the aquifer resulting from drought conditions and other ongoing remedial pumping within the OU-1 boundary. Vertical containment is provided by the confining layer between the shallow and deep zones. Additional geologic and water quality data have been collected from the new B-zone monitoring well installed adjacent to former monitoring well BMW-1, and will be used to further assess the effectiveness of this confining layer at minimizing vertical migration of contaminants.

GCR operational data collected this quarter in accordance with the OM&M Manual provide evidence that the treated vapor emissions met SCAQMD HRA requirements, and the treated water discharged met SDLAC permit requirements.

No modifications to the GCR operations are required at this time. It is recommended that the GCR continue to be implemented as currently configured.

8. PLANNED ACTIVITIES

Planned activities for the next quarter include the following:

- Routine bi-monthly status calls with USEPA;
- Weekly, monthly, and quarterly OM&M activities;
- Monthly assessment of VGAC effectiveness and need for carbon changeout;
- Quarterly piezometric monitoring and assessment of capture for compliance with RAOs;
- Monthly and quarterly assessment of data to determine if system adjustments (flow or

vacuum) are appropriate;

- Quarterly performance reporting; and
- Continued communication with property owners, tenants, and the city of Whittier regarding access for monitoring and other GCR activities.

9. REFERENCES

- CDM. (2005). *Engineering Evaluation and Cost Analysis*, July 29.
- CDM. (2005a). *Removal Action Plan and Preliminary Design Report*, December 16.
- CDM. (2007). *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System*, April 19.
- CDM. (2010). *Operations, Maintenance, and Monitoring Manual*, February 10.
- CDM Smith. (2015). *Memorandum: Treatment of Effluent from Groundwater Treatment System and Soil Vapor Extraction, Omega Chemical Superfund Site, Whittier, California 90602, February 26*.
- demaximis. (2017, July). email between de maximis inc and SDLAC regarding permit #20039. *Omega Chemical Site PRP Group LLC (2113183), Permit Number: 20039 - Permit Renewal Application*.
- OPOG. (2016). OPOG Responses to EPA Comments dated March 10 and 21, 2016, Draft 2015 Annual PSVP Report, Omega Chemical Superfund Site, Whittier, California, August.
- USEPA. (2001). *Consent Decree No. 00-12471*, February 28.
- USEPA. (2005). *Request for Removal Action Memorandum*, September 27.

Table 1
GCR Operational Summary and Mass Removed Totals
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

Month	System Runtime Percent ¹ (%)	System Runtime Hours (hrs)	Operational Flow Rate ² (gpm)	Average Flow Rate ³ (gpm)	Total Gallons Processed ⁴ (gal)	Mass Removed ⁵ (lbs)
October 2016	92	686	2.7	2.5	112,660	0.7
November 2016	96	694	4.3	4.2	180,310	1.1
December 2016	86	641	3.6	3.1	138,090	1.0
January 2017	95	709	4.5	4.2	189,340	1.2
February 2017	93	622	4.2	3.9	157,540	1.0
March 2017	66	487	4.9	3.2	142,640	0.9
April 2017	100	719	4.3	4.3	187,340	0.9
May 2017	78	581	5.5	4.3	191,370	1.8
June 2017	100	718	7.2	7.2	310,980	2.4
July 2017	97	722	6.5	6.3	280,530	1.6
August 2017	98	728	4.9	4.8	212,350	1.2
September 2017	100	716	5.7	5.7	244,980	1.1
Annual	Average = 92	Average = 669	Average = 4.9	Average = 4.5	Total = 2,348,130	Total = 14.9
				Cumulative Total⁶	38,667,675	952

Notes:

1. System Runtime Percent is the percentage of total hours in the month that the system actually operated.
2. Operational flow rate calculated from total gallons processed in the month and hours the system actually operated in the month.
3. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of system uptime.
4. Total gallons processed includes groundwater pumped to the GCR from other systems unrelated to the OU-1 EE/CA Remedy.
5. Mass removed is calculated from the average VOC concentration in the air stripper influent and discharge, and the total gallons processed. See Table 3.
6. The GCR has to date treated 38,667,675 gallons of water and removed a cumulative total of 952 pounds of contaminant. See Figure 2.

gpm = gallons per minute

hrs = hours

gal = gallons

lbs = pounds

Table 2
Air Stripper Influent and Effluent Concentrations Demonstrating Proper System Function
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

Sample ID	Sample Date	PCE	TCE	MeCL	1,2-DCA	Freon 11	Freon 113
OC_SP210_INF_100516	10/5/2016	570	28	50 U	6.9 J	13	52
OC_SP220B_EFF_100516	10/5/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_110916	11/9/2016	590 J	29 J	10 UJ	7 J	11 J	56 J
OC_SP220B_EFF_110916	11/9/2016	1 UJ	1 UJ	5 UJ	1 UJ	1 UJ	5 UJ
OC_SP210_INF_121316	12/13/2016	620	30	50 U	5.6 J	16	100
OC_SP220B_EFF_121316	12/13/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_01 10 17	1/10/2017	610	31	10 U	6.1	12	28
OC_SP220B_EFF_01 10 17	1/10/2017	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_020917	2/9/2017	560	29	10 U	6.2	14	130
OC_SP220B_EFF_020917	2/9/2017	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_031317	3/13/2017	580	31	25 U	7.4	18	98
OC_SP220B_EFF_031317	3/13/2017	2 U	2 U	10 U	2 U	2 U	10 U

Table 2
Air Stripper Influent and Effluent Concentrations Demonstrating Proper System Function
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

Sample ID	Sample Date	PCE	TCE	MeCL	1,2-DCA	Freon 11	Freon 113
OC_SP210_INF_041317	4/13/2017	380	25	50 U	6.5 J	13	83
OC_SP220B_EFF_041317	4/13/2017	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_051917	5/19/2017	780	55	10 U	8.5	19	160
OC_SP220B_EFF_051917	5/19/2017	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_061417	6/14/2017	600	50	10 U	7	32	140
OC_SP220B_EFF_061417	6/14/2017	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_072117	7/21/2017	470	28	5 U	5.8	14	110
OC_SP220B_EFF_072117	7/21/2017	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_080417	8/4/2017	470	27	50 U	6.7 J	16	110
OC_SP220B_EFF_080417	8/4/2017	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_090717	9/7/2017	360	30	5 U	3.7	17	92
OC_SP220B_EFF_090717	9/7/2017	1 U	1 U	5 U	1 U	1 U	5 U

Notes:

INF = Air stripper influent water. Untreated water sample collected downstream of bag filters.

EFF = Air stripper effluent water. Treated water sample collected in discharge header upstream of SDLAC sample box.

SDLAC = Sanitation District of Los Angeles County

All results are in micrograms per liter (ug/L)

U = not detected above reporting limit listed

J = analyte was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

J = quantitatively estimated

PCE = Tetrachloroethene; TCE = Trichloroethene; MeCL = Methylene chloride; DCA = Dichloroethane

Table 3
Vapor Phase GAC Concentrations Demonstrating Substantive Compliance with SCAQMD Regulations
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

SCAQMD Chemical-Specific Effluent Limit ¹			268.6	13.4	60	4.6	20	31.2	20	13
Sample ID	Sample Date	Units	PCE	TCE	1,1-DCA	1,2-DCA	BZ	MeCl	VC	CFM
OC_VGAC_INF_SP241_100516	10/5/2016	ppbv	99	7.4	0.5 U	1.7	0.5 U	5 U	0.5 U	5.5
OC_VGAC_INT_SP245_100516	10/5/2016	ppbv	0.53 U	0.53 U	0.53 U	0.59	0.53 U	5.3 U	0.53 U	6.6
OC_VGAC_EFF_SP242_100516²	10/5/2016	ppbv	0.54 U	0.54 U	0.64	0.54 U	0.54 U	5.4 U	0.54 U	3.3
OC_VGAC_INF_SP241_110916	11/9/2016	ppbv	92	6.6	0.5 U	1.4	0.51	5 U	0.5 U	4.5
OC_VGAC_INT_SP245_110916	11/9/2016	ppbv	0.5 U	0.5 U	0.5 U	0.61	0.5 U	5 U	0.5 U	5.8
OC_VGAC_EFF_SP242_110916	11/9/2016	ppbv	0.6 U	0.6 U	0.62	0.6 U	1.2	6 U	0.6 U	3.9
OC_VGAC_INF_SP241_121316	12/13/2016	ppbv	70	5.2	0.51 U	1.2	0.51 U	5.1 U	0.51 U	4
OC_VGAC_INT_SP245_121316	12/13/2016	ppbv	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	5.3 U	0.53 U	4.4
OC_VGAC_EFF_SP242_121316	12/13/2016	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	3.3
OC_VGAC_INF_SP241_011017	1/10/2017	ppbv	71	4.6	0.5 U	1.2	0.5 U	5 U	0.5 U	4.4
OC_VGAC_INT_SP245_011017	1/10/2017	ppbv	0.5 U	0.5 U	0.5 U	0.51	0.5 U	5 U	0.5 U	4.2
OC_VGAC_EFF_SP242_011017	1/10/2017	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	3.2
OC_VGAC_INF_SP241_020917	2/9/2017	ppbv	54	6.8	0.52 U	1.1	0.88	5.2 U	0.52 U	3
OC_VGAC_INT_SP245_020917	2/9/2017	ppbv	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	5.6 U	0.56 U	4.2
OC_VGAC_EFF_SP242_020917	2/9/2017	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	3
OC_VGAC_INF_SP241_030817	3/8/2017	ppbv	76	6.4	0.5 U	1.6	0.5 U	5 U	0.5 U	5
OC_VGAC_INT_SP245_030817	3/8/2017	ppbv	0.5 U	0.5 U	0.5 U	0.89	0.5 U	5 U	0.5 U	7.2
OC_VGAC_EFF_SP242_030817	3/8/2017	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.63	5 U	0.5 U	5

Table 3
Vapor Phase GAC Concentrations Demonstrating Substantive Compliance with SCAQMD Regulations
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

SCAQMD Chemical-Specific Effluent Limit ¹			268.6	13.4	60	4.6	20	31.2	20	13
Sample ID	Sample Date	Units	PCE	TCE	1,1-DCA	1,2-DCA	BZ	MeCl	VC	CFM
OC_VGAC_INF_SP241_041317	4/13/2017	ppbv	88	6.8	0.64 U	1.7	0.64 U	6.4 U	0.64 U	6.1
OC_VGAC_INT_SP245_041317	4/13/2017	ppbv	0.7 U	7 U	0.7 U	5.1				
OC_VGAC_EFF_SP242_041317	4/13/2017	ppbv	0.7 U	7 U	0.7 U	4.1				
OC_VGAC_INF_SP241_051917	5/19/2017	ppbv	240	22	0.65	3.9	0.56	5.4 U	0.54 U	19
OC_VGAC_INT_SP245_051917	5/19/2017	ppbv	0.59 U	0.59 U	0.59 U	0.74	0.59 U	5.9 U	0.59 U	5.3
OC_VGAC_EFF_SP242_051917	5/19/2017	ppbv	12	0.6 U	0.6 U	0.6 U	0.6 U	6 U	0.6 U	4.1
OC_VGAC_INF_SP241_061417	6/14/2017	ppbv	130	17	2.6 U	2.9	2.6 U	26 U	2.6 U	14
OC_VGAC_INT_SP245_061417	6/14/2017	ppbv	2.3 U	23 U	2.3 U	5.9				
OC_VGAC_EFF_SP242_061417	6/14/2017	ppbv	0.5 UJ	5 UJ	0.5 UJ	2.2 J				
OC_VGAC_INF_SP241_072117	7/21/2017	ppbv	80	8.6	0.5 U	1.5	0.5 U	5 U	0.5 U	4.5
OC_VGAC_INT_SP245_072117	7/21/2017	ppbv	0.53 U	0.53 U	0.53 U	0.98	0.53 U	5.3 U	0.53 U	6.4
OC_VGAC_EFF_SP242_072117	7/21/2017	ppbv	0.5 U	5 U	0.5 U	4.9				
OC_VGAC_INF_SP241_080417	8/4/2017	ppbv	58	5.2	1.1 U	1.4	1.1 U	11 U	1.1 U	3.5
OC_VGAC_INT_SP245_080417	8/4/2017	ppbv	1.1 U	1.1 U	1.1 U	1.2	12	11 U	1.1 U	6.9
OC_VGAC_EFF_SP242_080417	8/4/2017	ppbv	1.1 U	11 U	1.1 U	4.9				
OC_VGAC_INF_SP241_090717	9/7/2017	ppbv	89	12	1.1 U	2.3	2.6	11 U	1.1 U	5.6
OC_VGAC_INT_SP245_090717	9/7/2017	ppbv	1.2 U	1.2 U	1.2 U	1.6	1.2 U	12 U	1.2 U	8.9
OC_VGAC_EFF_SP242_090717	9/7/2017	ppbv	1.2 U	12 U	1.2 U	5.6				
Compliance with Effluent Limits?			YES	YES	YES	YES	YES	YES	YES	YES

1. SCAQMD effluent limits are in parts per billion volume (ppbv)

2. Bold text indicates vapor effluent results from the VGAC effluent required to meet SCAQMD HRA chemical specific limits shown in the table.

INF = Vapor phase GAC influent. VOC-laden vapor sample collected at the influent to the lead vapor GAC unit.

INT = Vapor phase GAC intermediate. Partially treated vapor sample collected between the lead and lag vapor GAC units.

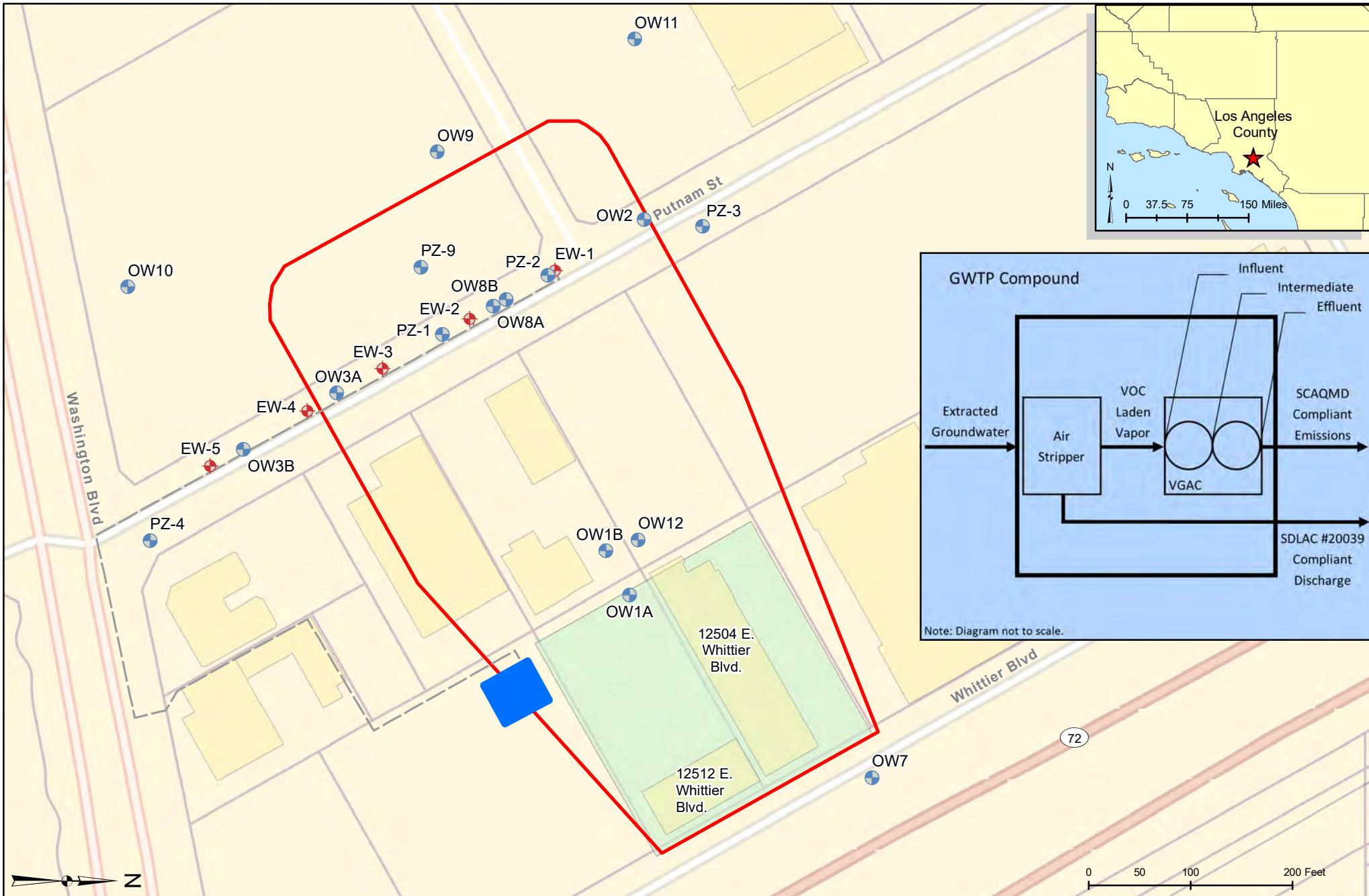
EFF = Vapor phase GAC effluent. Fully treated vapor sample collected at the effluent from lag (polishing) vapor GAC unit.

VGAC = vapor phase granular activated carbon; GAC = granular activated carbon

SCAQMD HRA Limit = South Coast Air Quality Management District Health Risk Assessment permitted concentration limit in ppbv

U = not detected above reporting limit listed; UJ = analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise; J = quantitatively estimated

PCE = Tetrachloroethene; TCE = Trichloroethene; 1,1-DCA = 1,1-Dichloroethane; 1,2-DCA = 1,2-Dichloroethane; BZ = Benzene; MeCl = Methylene chloride; VC = Vinyl chloride; CFM = Chloroform



- ◆ Extraction Well
- Observation Well/Piezometer
- ~~~~ GCR Conveyance Piping
- GWTP Compound Location

- Former Omega Chemical Property Boundary
- OU-1 Boundary

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/9/2017

Figure 1
OU-1 Location Map and Groundwater Containment Remedy Location
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
12504/12512 East Whittier Boulevard
Whittier, California

Figure 2
GCR Cumulative Gallons Treated and Mass Removed
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

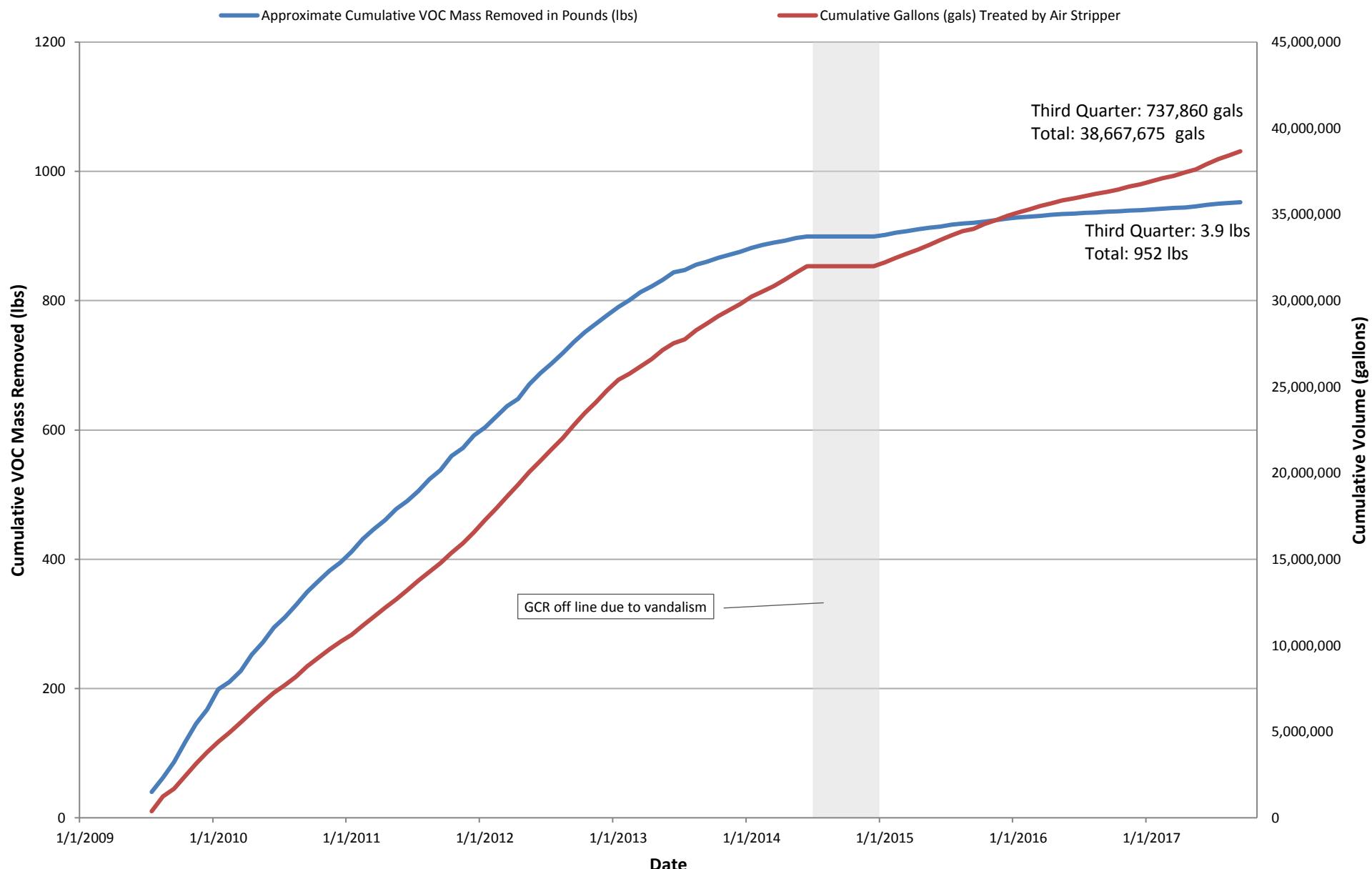
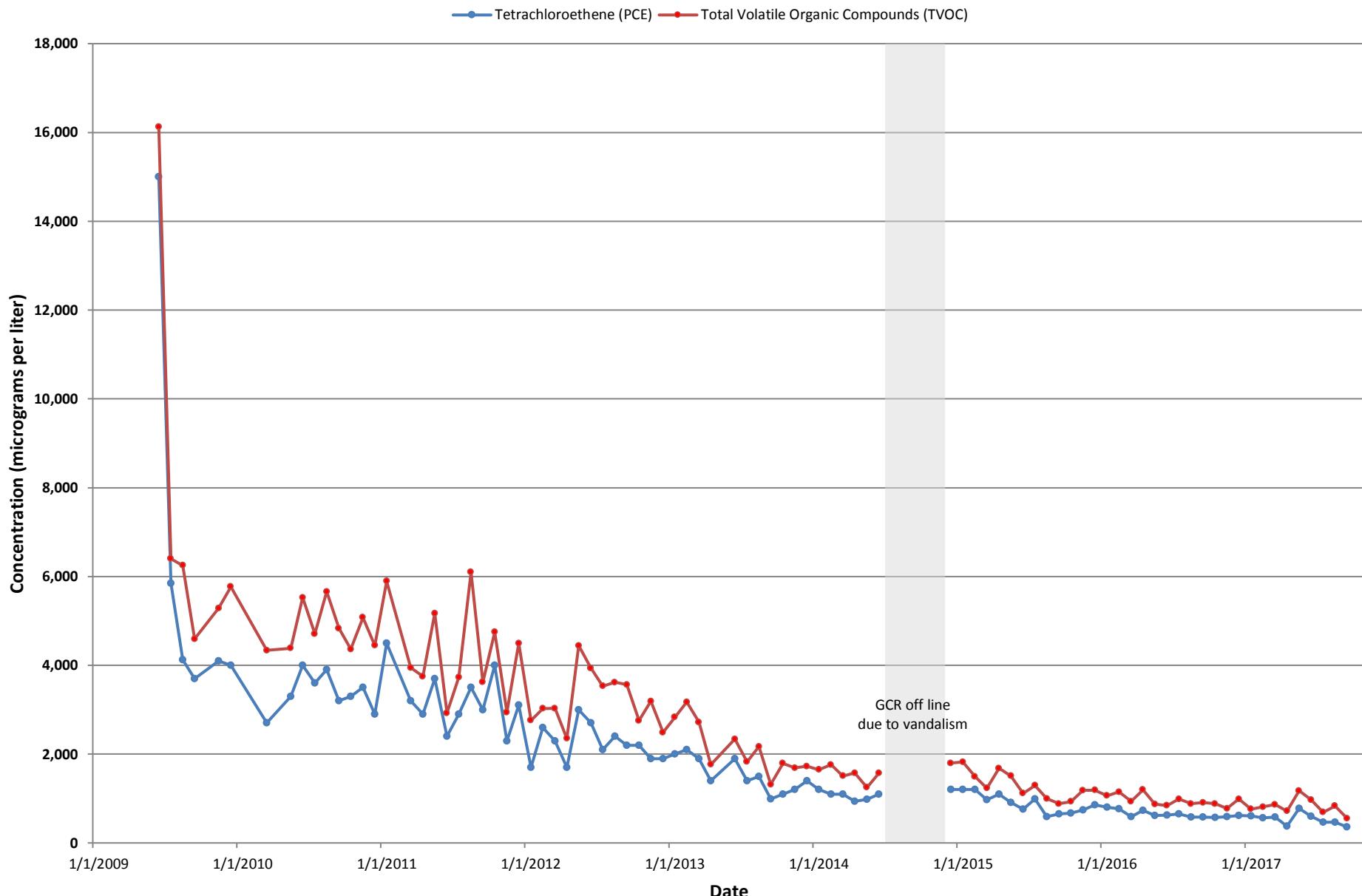


Figure 3
GCR Air Stripper Influent Concentrations Over Time
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017



Attachment A

Quarterly Groundwater Containment Review



Memorandum

To: Jaime Dinello, de maximis, inc.

From: Matt Gamache, CDM Smith

Date: November 10, 2017

Subject: Omega Operable Unit 1 EE/CA Remedy

Quarterly Groundwater Containment Review– August 7 - 10, 2017

This memorandum provides and discusses the third quarter 2017 (3Q2017) groundwater elevation contours based on the August 7-10, 2017 groundwater monitoring gauging activities, and the response of the local groundwater table to the Omega Operable Unit (OU)-1 Groundwater Containment Remedy (GCR) operation. The purpose of the GCR is to hydraulically contain the highest levels of contamination dissolved in groundwater within OU-1. Extraction wells (EWs) located along Putman Street are designed to provide a hydraulic barrier at the down-gradient boundary of OU-1 (Figure A-1). This memorandum is Attachment A to the Annual Performance Evaluation Report for the GCR.

On August 7-10, 2017, in accordance with the approved Performance Standards Verification Plan (PSVP) for the GCR, water level elevations were measured for the purposes of demonstrating hydraulic containment of groundwater within OU-1. The majority of the monitoring points used in this evaluation lie within the boundaries of OU1. However, selected monitoring points immediately adjacent to OU1 (e.g. PZ-3, OW-9, and OW-3B) are also used to assess the performance of the OU1 groundwater remedy. All PSVP-required locations were measured during 3Q2017. No measured wells transitioned to or from dry conditions between this and the previous quarter. These data are plotted along with interpreted water level elevation contours (1-foot interval) on Figure A-1. The total average extraction rate associated with the August 7-10, 2017 water level data is 3.26 gpm.

The water-level contour map (Figure A-1) demonstrates that flow from the former Omega Chemical property located at 12504 and 12515 Whittier Blvd. Whittier, California (property) is primarily converging east of the Putnam Street GCR boundary wells EW-1, EW-2, and EW-3. Capture at EW-5 and EW-4 is shown in Figure A-1 as a localized cone of depression around the August 7-10, 2017 water level elevations at EW-5 (112.61 feet) and EW-4 (114.46 feet). These wells pumped an average of 0.06 and 0.01 gpm, respectively, between August 7 and 10, 2017.

The horizontal gradient within OU-1 is variable due to continued groundwater extraction. The horizontal gradient from the property towards Putnam Street in the vicinity of EW-2 was

approximately 0.05 ft/ft. The horizontal gradient along Putnam Street between PZ-4 and EW-5 was approximately 0.14 ft/ft.

Vertical gradients are examined at one on-site well triplet and two on-site well pairs: OW-1A/OW-12/OW-1B, OW-3A/OW-3B, and OW-8A/OW-8B, the locations of which are shown on Figure A-2. For each set of wells, the 'A' well is screened in the A-zone and the 'B' well is screened in the B-zone. OW-12 is also screened in the A-zone in-between OW-1A and OW-1B. The A-zone, essentially the water table aquifer, is currently being pumped by the GCR and is the principal zone impacted by VOCs at the site. The A and B-zones show minimal hydraulic connection at the site, based on lithologic data demonstrating the presence of a confining unit between these zones and the significant difference in head across the confining unit.

Two cross sections (A-A' and B-B') have been included to further illustrate this hydraulic and physical separation. The locations of both sections are shown in Figure A-3 and the cross sections themselves are shown in Figures A-4 (A-A') and A-5 (B-B'). In Figure A-4, the well screen of OW-8B is shown to be below a nearly 30-foot thick layer of Clayey Silt or Silty Clay that underlies the A-zone. A similar separation is depicted between the OW-3A and OW-3B well screens, between which exists the same 30-foot thick Clayey Silt or Silty Clay layer.

In Figure A-5, the lithology around OW-1A, OW-12, and OW-1B varies from what is observed at the other well pairs. In this instance, OW-1A is partially screened within a sand layer, but the area around the OW-12 and OW-1B well screens has been classified as Clayey Silt or Silty Clay. Since there are no lithological markers differentiating the two lower-screened wells, the groundwater elevations must be used to infer the degree of hydraulic connection/separation. Hydrographs showing the water levels over time at these three wells are shown in Figure A-6. Although OW-1A has been dry for most of the OW-12 data collection period, vertical (downward) gradients can be seen between these two wells in the few instances where water was found at OW-1A since 2013. Vertical (downward) gradients between OW-12 and OW-1B are also present for all synoptic rounds of data except for August 2017, when groundwater elevations are approximately 117 feet at both wells. Despite these similar elevations in August 2017, the units screened by these two wells are still considered to be hydraulically separated. OW-12 water level elevations have receded with time, similar to most other A-zone wells over the same 2013 – 2017 period, while OW-1B water levels have risen over the most recent three consecutive quarters, indicative of the more rapid response to changes in rainfall recharge seen in the B-zone. This is similar to what has been observed at OW-3A/OW-3B (Figure A-7) and OW-8A/OW-8B (Figure A-8).

The area covered by the cone of depression in 3Q2017 is similar in size to what was observed and documented in 2Q2017 (CDM Smith, 2017). The combination of GCR extraction and the regional drought conditions and other OU-1 remedial pumping has essentially dewatered the A-Zone aquifer. As demonstrated on Figure A-1, full containment of the OU-1 groundwater is attained.

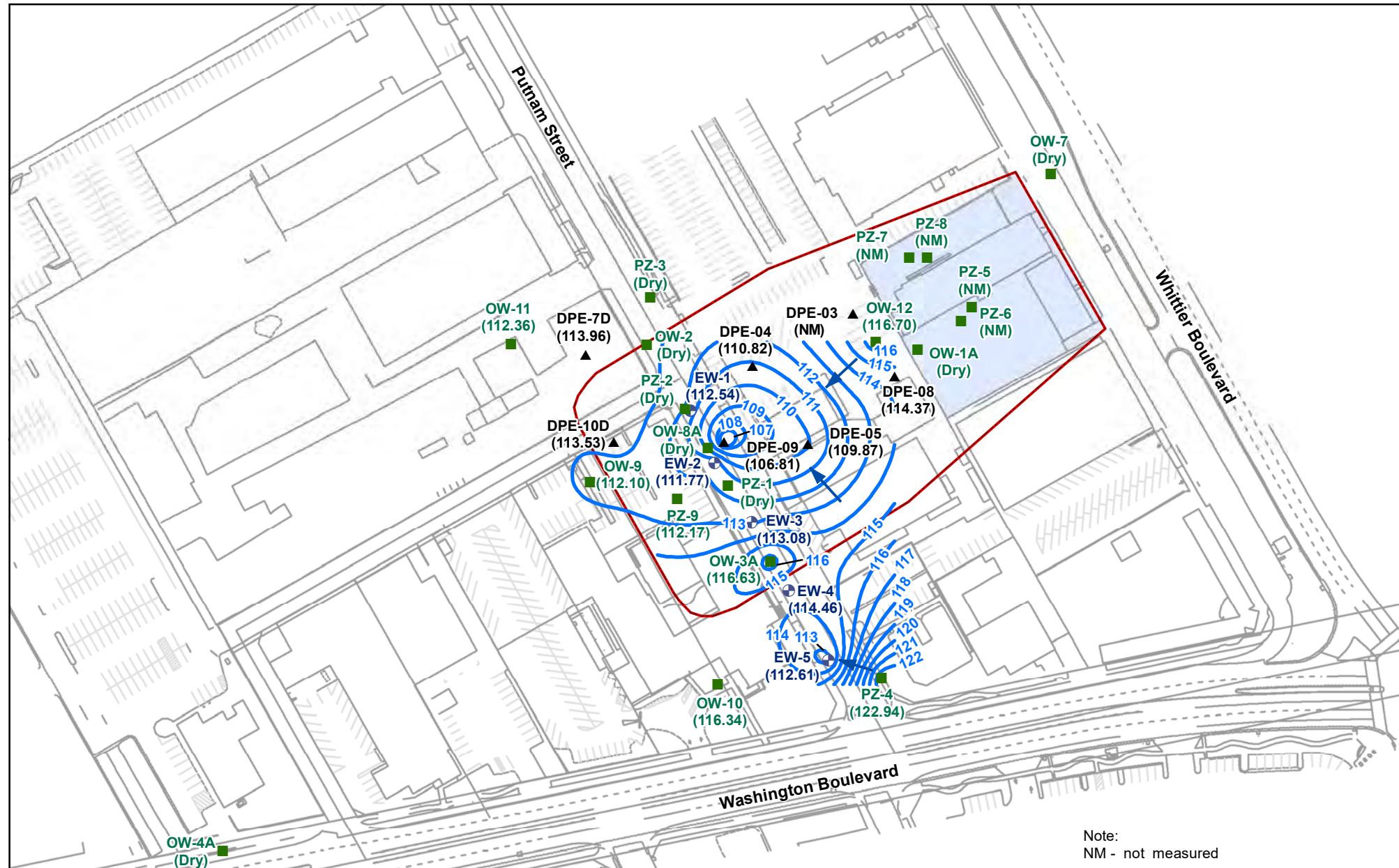
References

November 10, 2017

Page 3

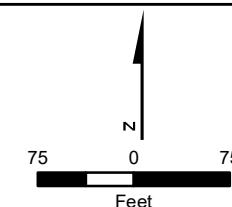
CDM, 2007. *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System*. April 19, 2007.

CDM Smith, 2017. *Omega Operable Unit 1 EE/CA Remedy Quarterly Groundwater Containment Review – June 1, 2017*. August 23, 2017.



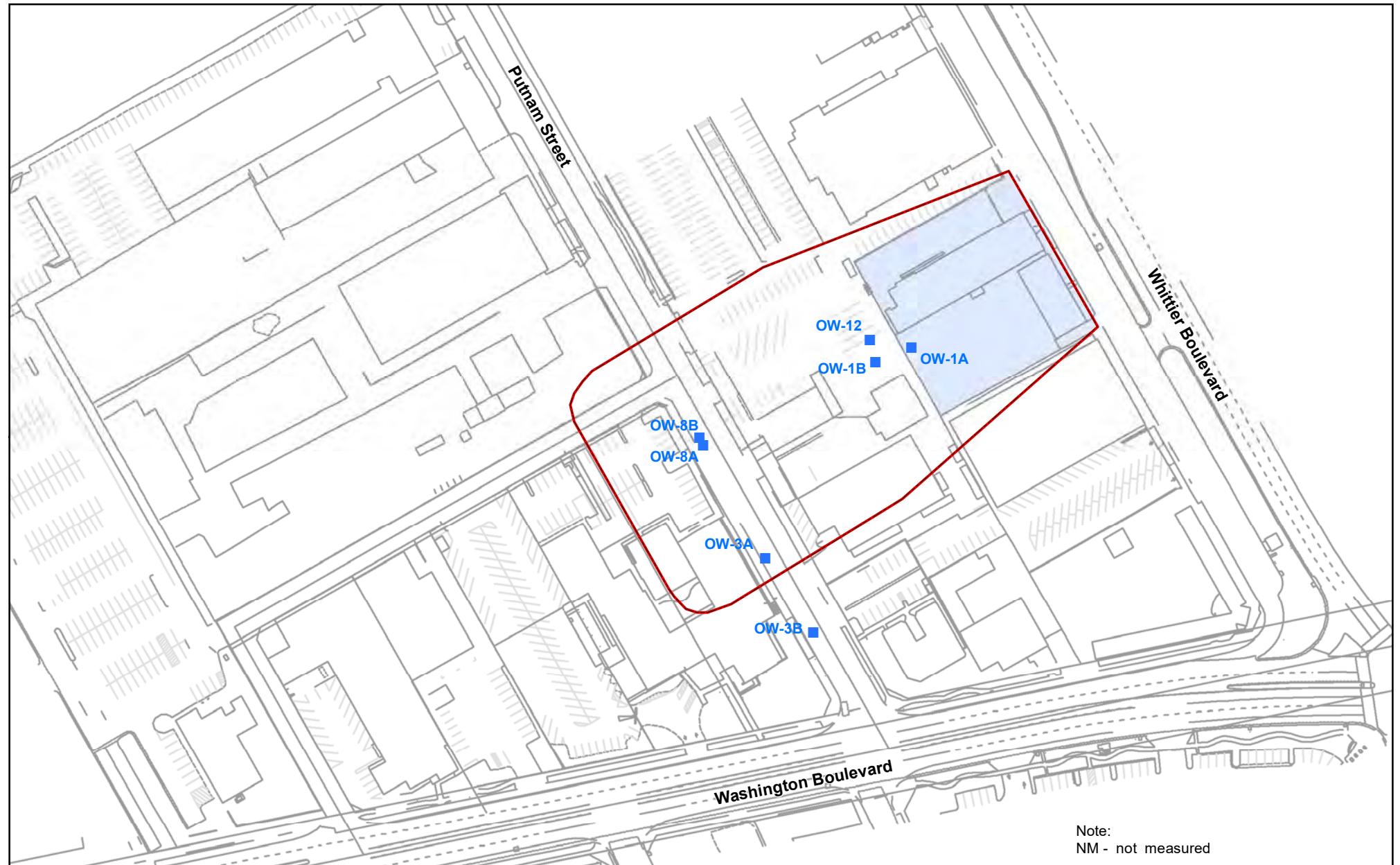
Legend

- Phase Ia Area
- Former Omega Chemical Property
- Groundwater Elevation Contour - Dashed where Inferred (Feet above mean sea level)
- Groundwater Flow Direction
- Extraction Well
- Shallow Observation Well / Piezometer
- Dual Phase Extraction Well Location



Omega Chemical
Shallow Zone
Groundwater Contour Map
August 7-10, 2017

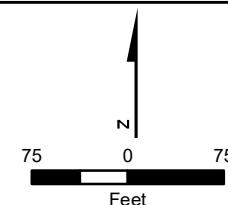
Figure A-1

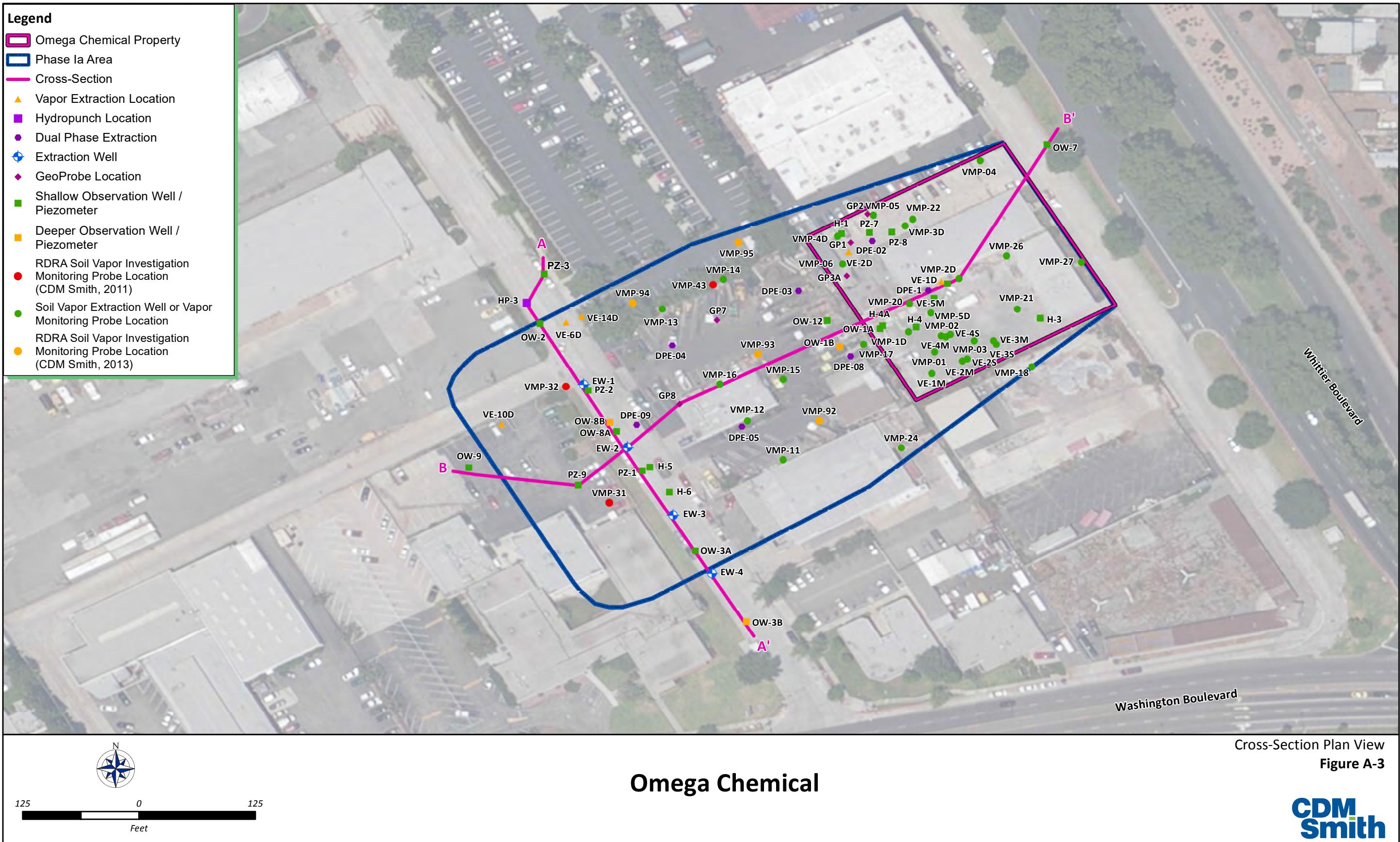


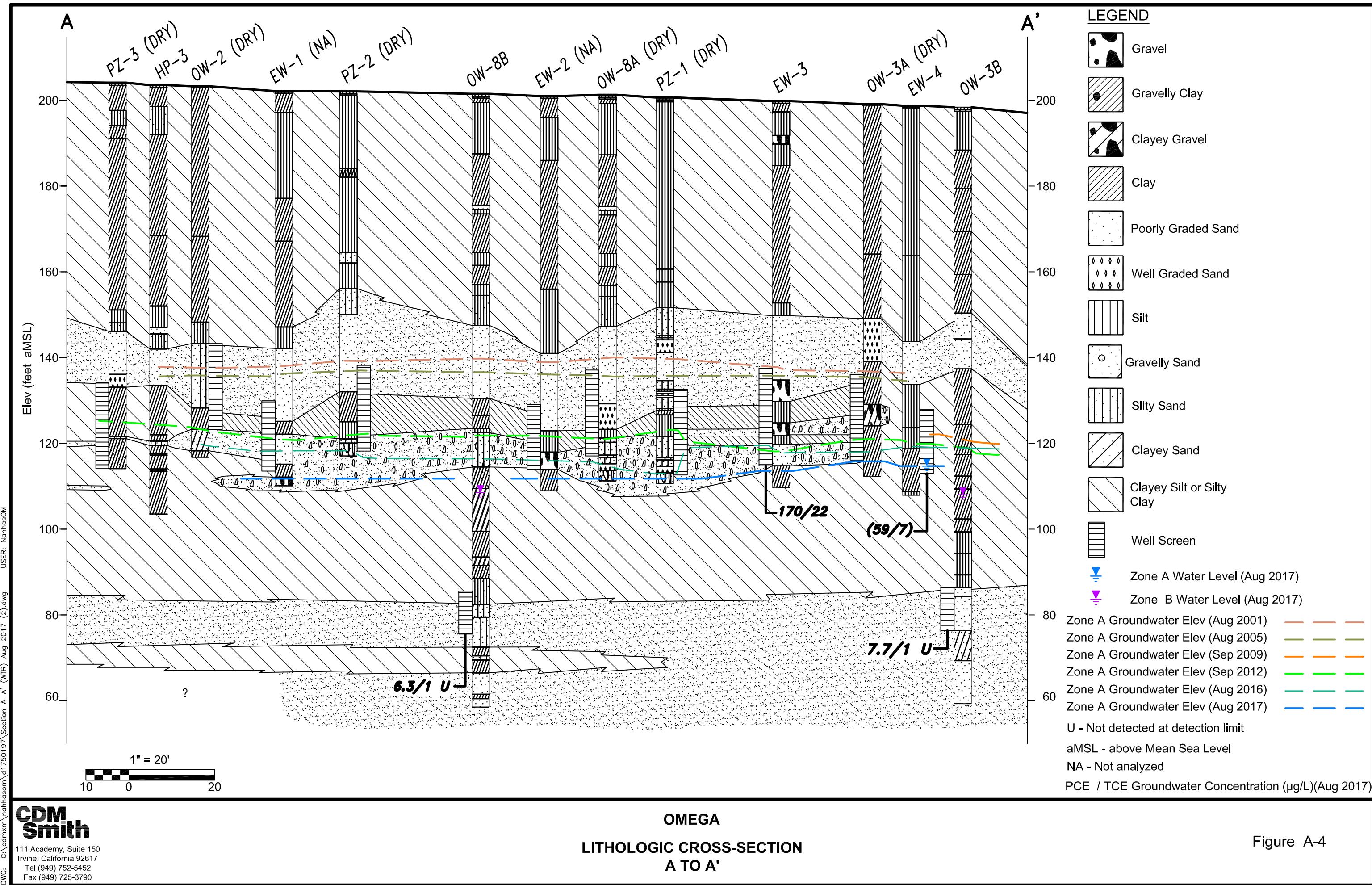
Legend

- Phase Ia Area (Red Box)
- Former Omega Chemical Property (Light Blue)
- Observation Well Pair (A-zone/B-zone) (Blue Square)

Omega Chemical
A-zone/B-zone Well Pairs







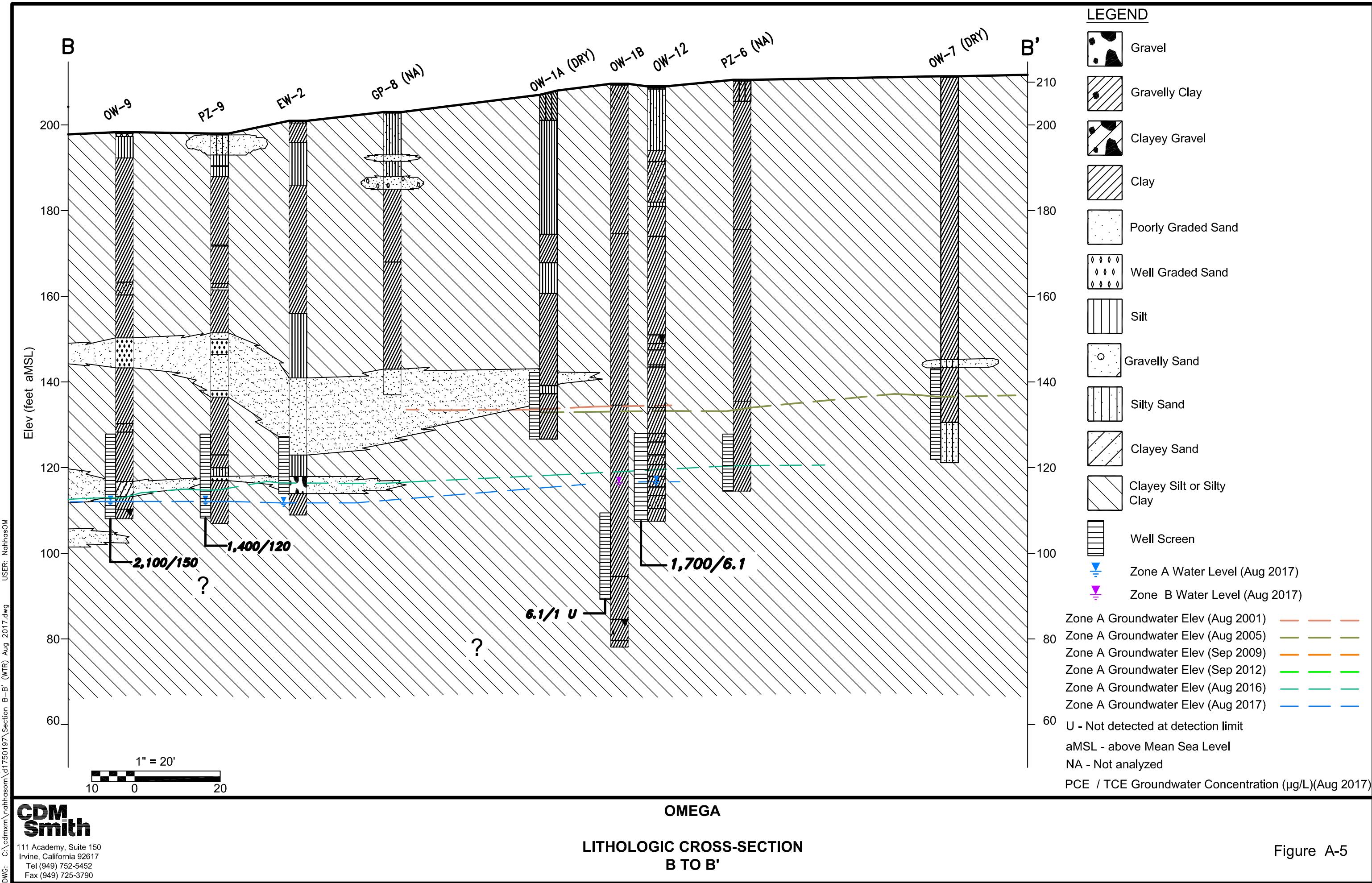


Figure A-5

Figure A-6
Omega Chemical Superfund Site
OW-1A, OW-1B, and OW-12 Well Hydrographs
2004 to 2017

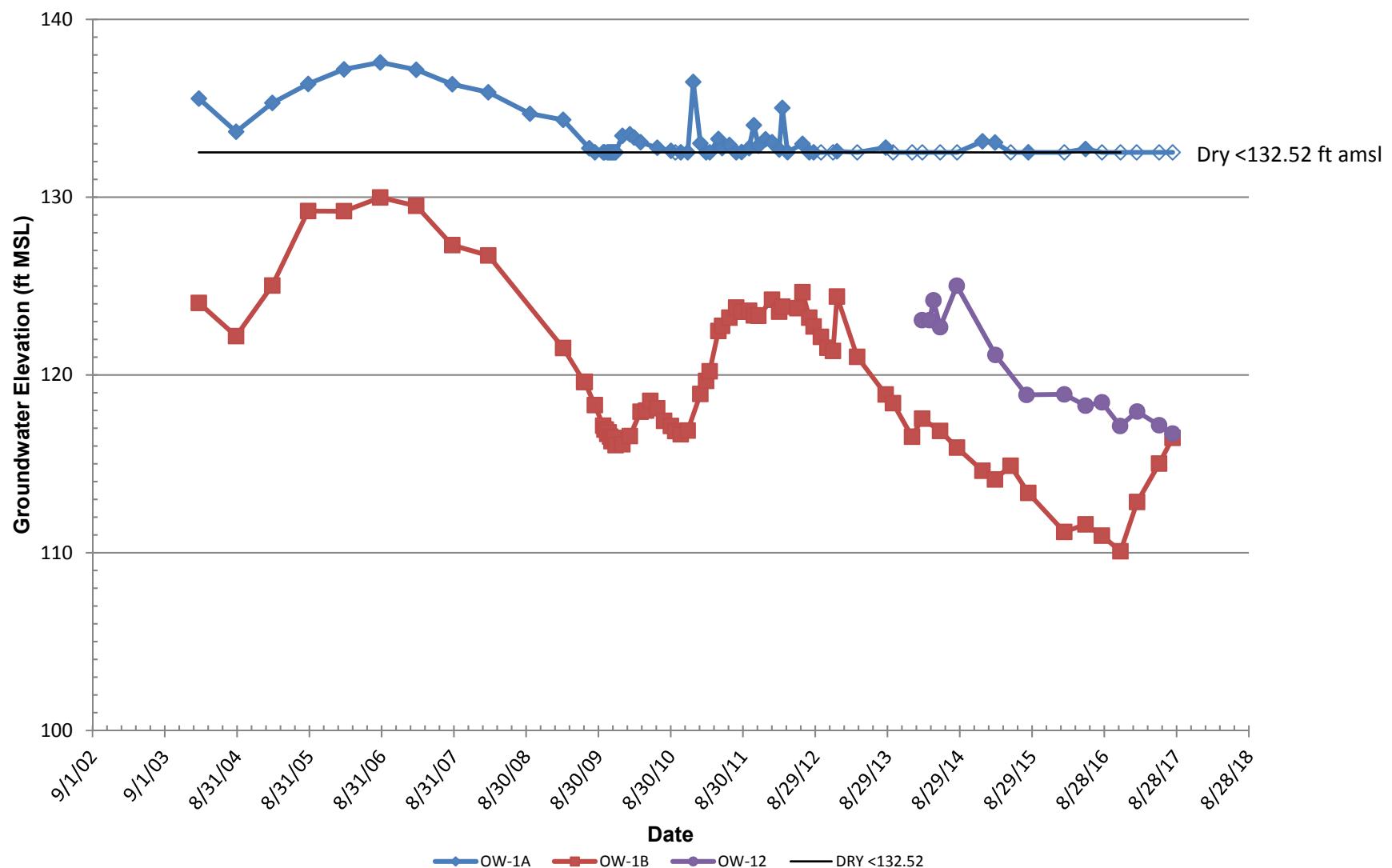


Figure A-7
Omega Chemical Superfund Site
OW-3A and OW-3B Well Hydrographs
2004 to 2017

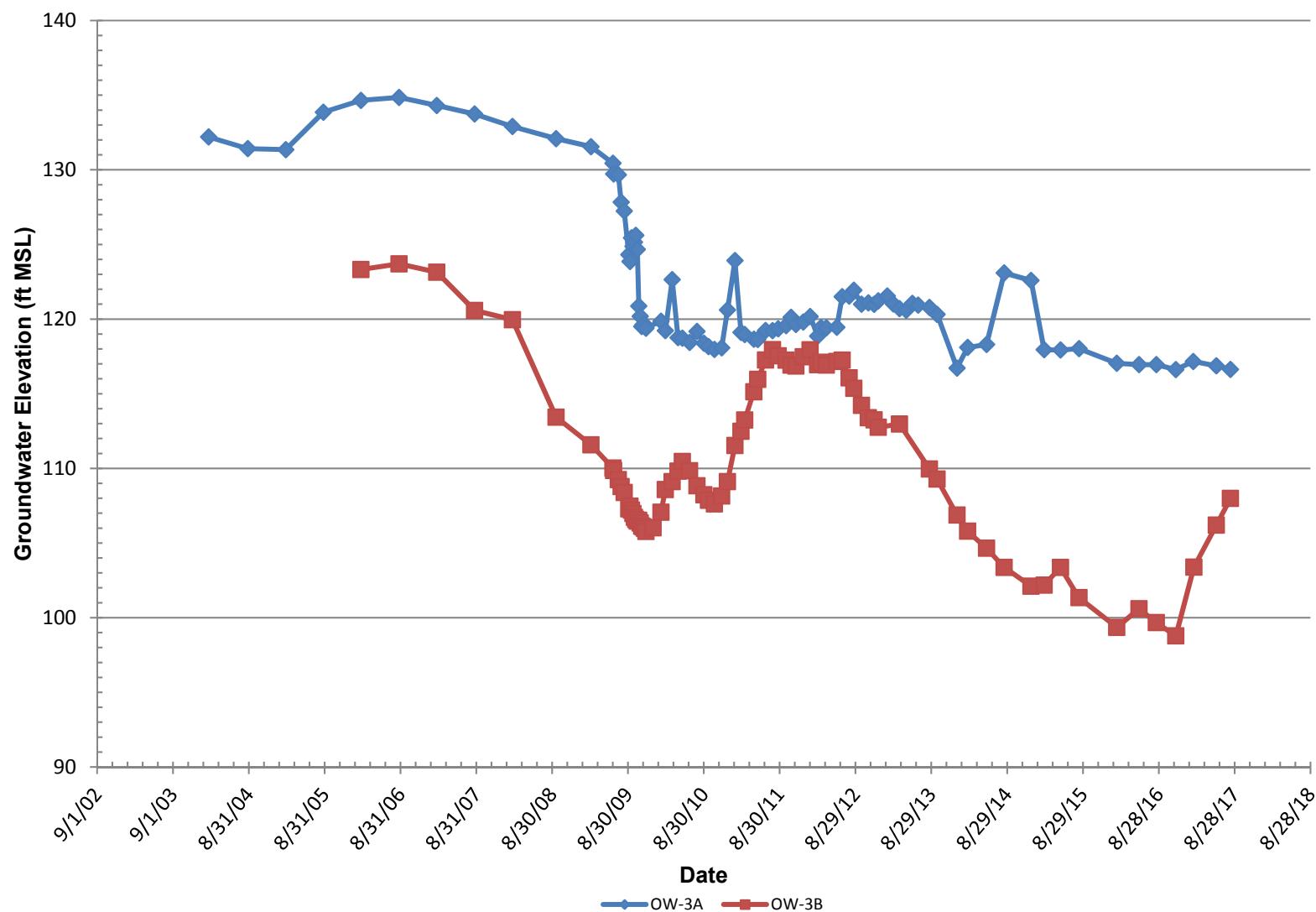
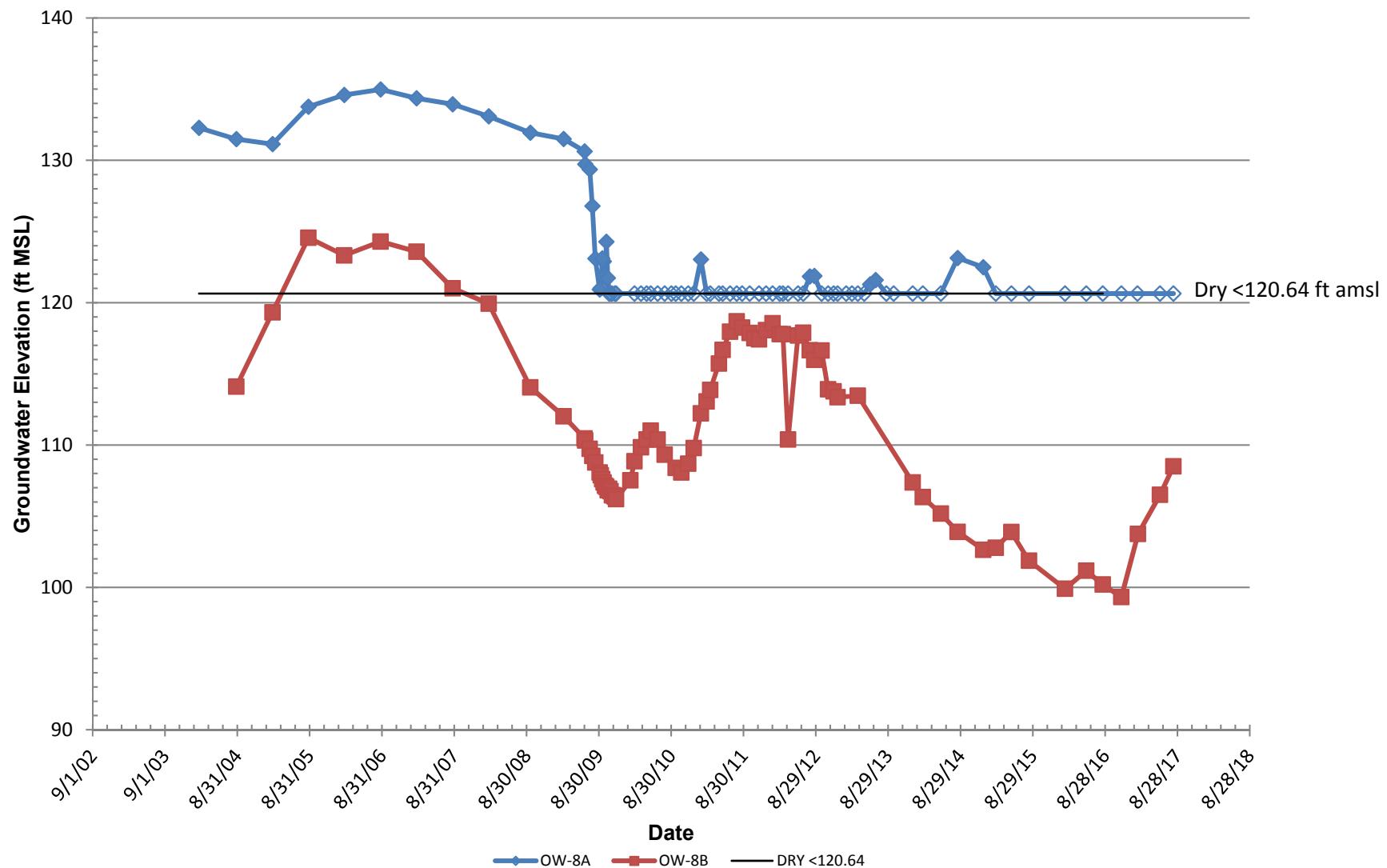


Figure A-8
Omega Chemical Superfund Site
OW-8A and OW-8B Well Hydrographs
2004 to 2017



Attachment B

PSVP Piezometric and Water Quality Data

Attachment B, Table B-1
Piezometric Monitoring Data
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2017

Well No.	Top of Casing Elevation (feet MSL)	Screen Interval (feet MSL)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
EW-1	198.96	114.94 - 129.94	8/7/2017	86.42	112.54
EW-2	197.87	113.77 - 128.77	8/7/2017	86.10	111.77
EW-3	196.78	114.59 - 129.59	8/7/2017	83.70	113.08
EW-4	195.79	112.73 - 127.73	8/7/2017	81.33	114.46
EW-5	194.19	111.96 - 126.96	8/7/2017	81.58	112.61
PZ-1	200.26	112.65 - 132.65	8/7/2017	Dry	Dry
PZ-2	201.48	118.02 - 138.02	8/7/2017	Dry	Dry
PZ-3	203.94	114.39 - 134.39	8/7/2017	Dry	Dry
PZ-4	196.26	106.66 - 126.66	8/7/2017	73.32	122.94
OW1A	212.53	132.47 - 147.47	8/7/2017	Dry	Dry
OW1B	207.22	87.42 - 97.42	8/9/2017	92.90	114.32
OW2	202.33	123.23 - 143.23	8/7/2017	Dry	Dry
OW3A	198.58	116.13 - 136.13	8/9/2017	81.95	116.63
OW3B	197.38	75.79 - 85.79	8/8/2017	91.91	105.47
OW7	214.29	124.69 - 144.69	8/7/2017	Dry	Dry
OW8A	200.66	121.33 - 140.93	8/8/2017	Dry	Dry
OW8B	200.84	75.39 - 85.39	8/8/2017	95.15	105.69
OW9	198.07	108.42 - 128.42	8/10/2017	85.97	112.10
OW10	195.54	106.46 - 126.46	8/9/2017	79.20	116.34
OW12	208.42	108.97 - 128.97	8/8/2017	91.72	116.70

Notes:

Elevation data per California Coordinate System NADV88

btoc = below top of casing

Dry = No water detected, water detected below the screen interval, or water detected at or near total depth of well

MSL = mean sea level

Attachment B, Table B-2
PSVP Groundwater Analytical Summary
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2017

Well ID / Screen Interval ¹	Sample Date	Sample Type	PCE	TCE	1,4DIOX	1,1,1-TCA	1,1-DCE	1,2-DCA	Freon 113	Freon 11	Freon 12
EW-1 (72 - 87)	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS
EW-2 (72 - 87)	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS
EW-3 (70 - 85)	8/7/2017	ORIG	170	22	0.55 J-	1.0 U	97	1.0 U	54	33	1.0 U
EW-4 (71 - 86)	8/7/2017	ORIG	59	7.0	0.10 JN	1.0 U	66	1.0 U	44	29	1.0 U
EW-5 (70 - 85)	8/7/2017	ORIG	24	3.3	0.51 UJ	1.0 U	25	1.0 U	90	64	1.0 U
OW1A (62.5 - 77.5)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW1B (110 - 120)	8/9/2017	ORIG	6.1	1.0 U	0.16 J-	1.0 U	1.0 U	1.0 U	1.2 J	0.30 J	1.0 U
	8/9/2017	DUP	6.4	1.0 U	0.18 J-	1.0 U	1.0 U	1.0 U	1.2 J	0.36 J	1.0 U
OW2 (60 - 80)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW3A (63 - 83)	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS
OW3B (112 - 122)	8/8/2017	ORIG	7.7	1.0 U	0.51 UJ	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
OW7 (70.9 - 90.9)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW8A (60.4 - 80)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW8B (116 - 126)	8/8/2017	ORIG	6.3	1.0 U	0.51 UJ	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
	8/8/2017	DUP	6.3	1.0 U	0.51 UJ	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
OW9 (70-90)	8/10/2017	ORIG	2100	150	860 J-	5.0 U	190	78	52	32	5.0 U
	8/10/2017	DUP	2200	150	790 J-	5.0 U	180	87	62	31	5.0 U
OW10 (69.5-89.5)	8/9/2017	ORIG	37	2.7	0.12 J-	1.0 U	20	1.0 U	7.1	4.6	1.0 U
OW12 (80 - 100)	8/11/2017	ORIG	1700	210	9.4 J-	68	84	5.1	1100	42	5.0 U

Notes:

1. The screen interval units are feet below top of casing.

All results are in micrograms per liter (ug/L)

U = not detected above reporting limit listed

J = results are qualified as estimated

UJ = not detected above reporting limit listed and reporting limit is qualified as estimated

J- = result is an estimated quantity, but may be biased low. See data validation report in Attachment E.

JN = quantitatively estimated and presumptively present

PCE = Tetrachloroethene; TCE = Trichloroethene; TCA = Trichloroethane; DCE = Dichloroethene;

Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane; Freon 11 = Trichlorofluoromethane;

ORIG = primary sample

DUP = duplicate sample

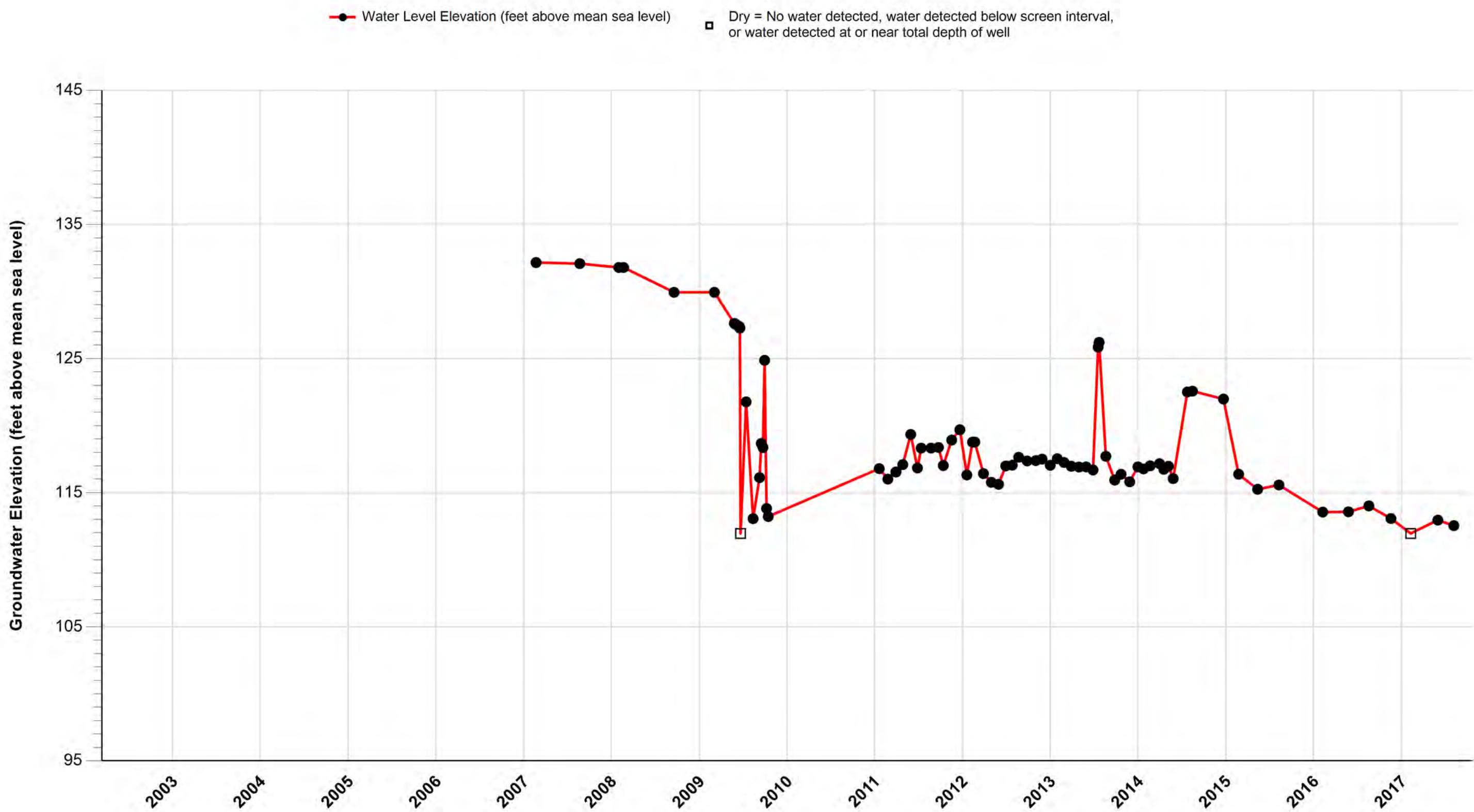
Freon 12 = Dichlorodifluoromethane; DCA = Dichloroethane; 1,4DIOX = 1,4-dioxane

Dry = No water detected, water detected below the screen interval, or water detected at or near total depth of well

Dry - NS = insufficient water to sample

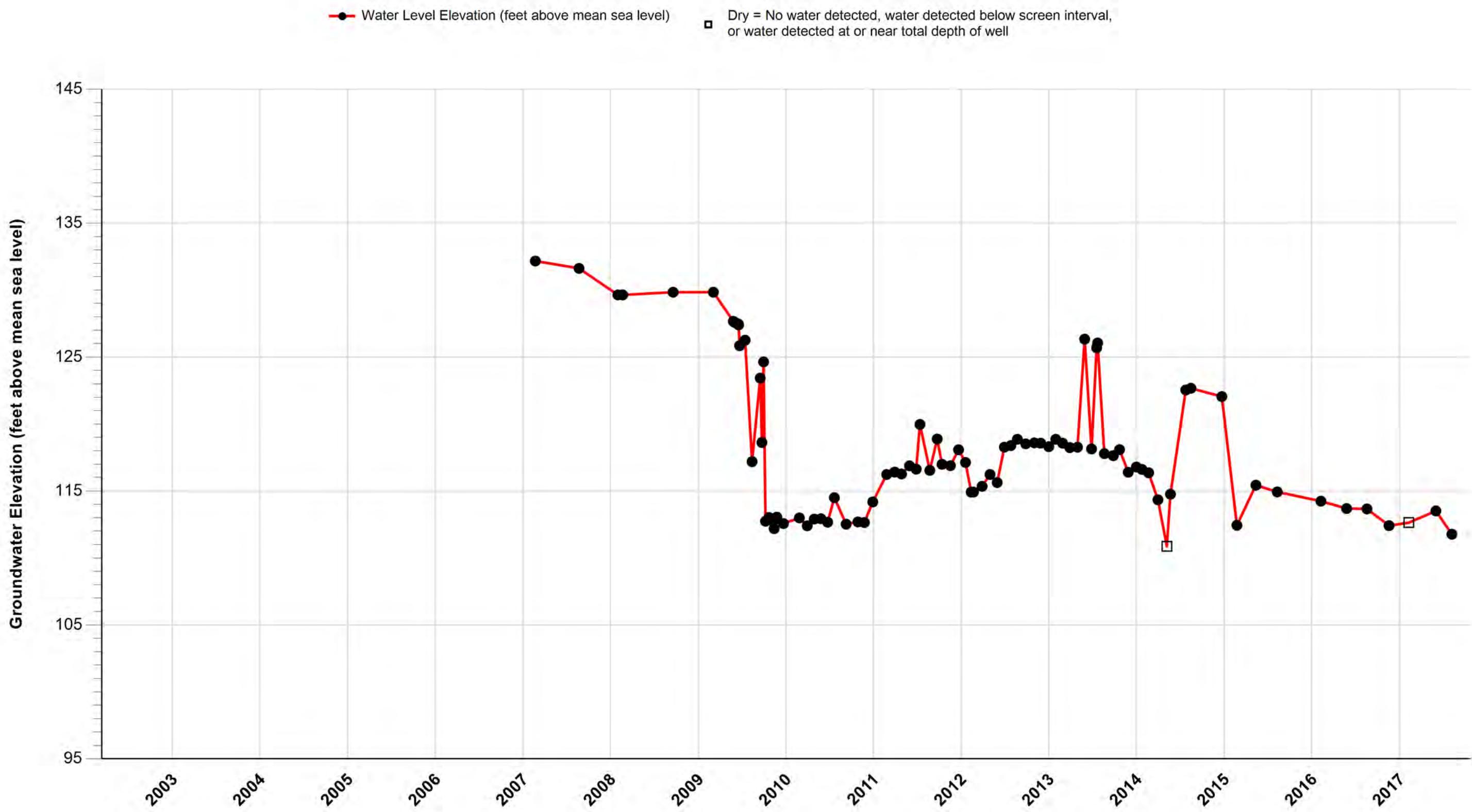
Attachment B, Figure B-1
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

EW-1

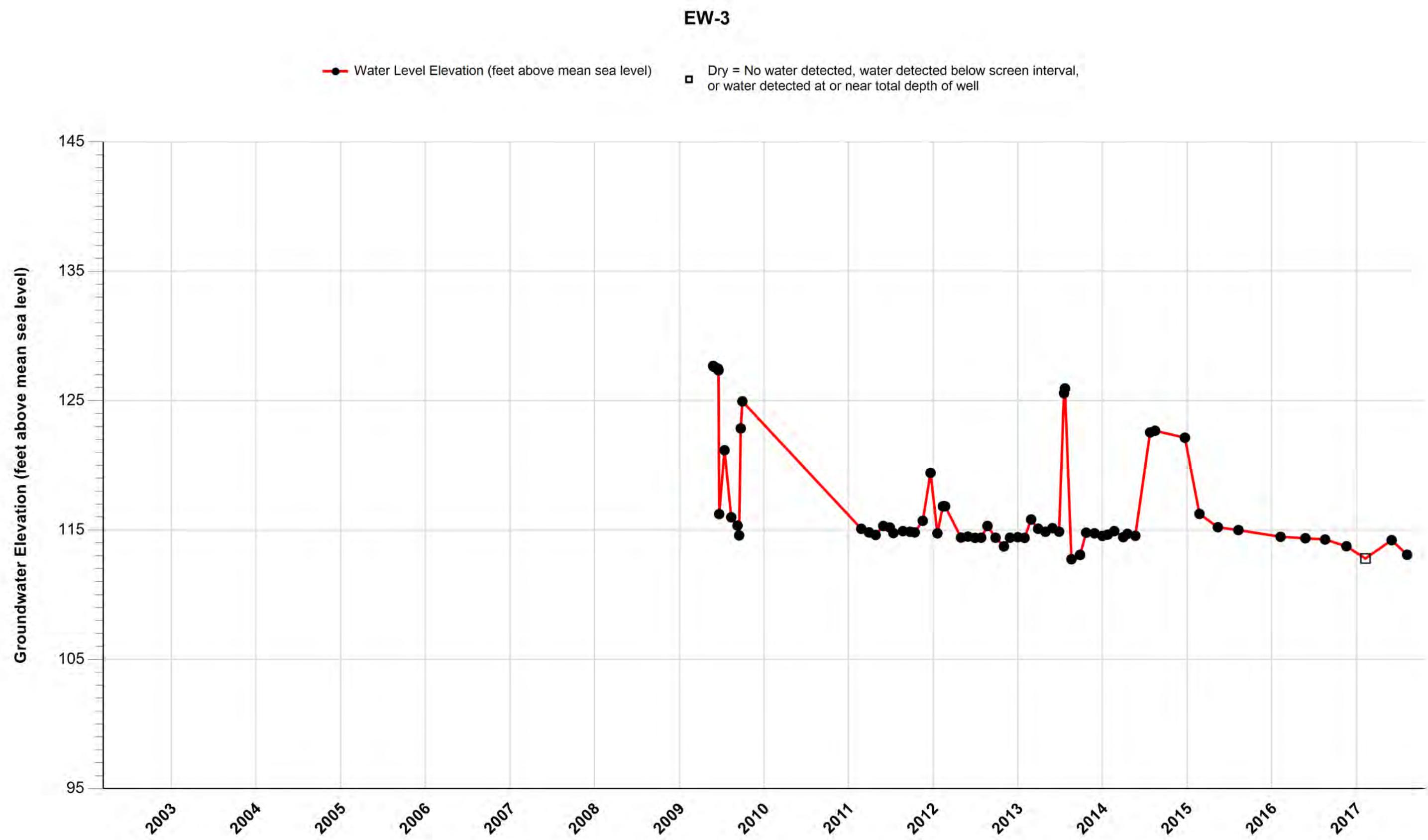


Attachment B, Figure B-2
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

EW-2

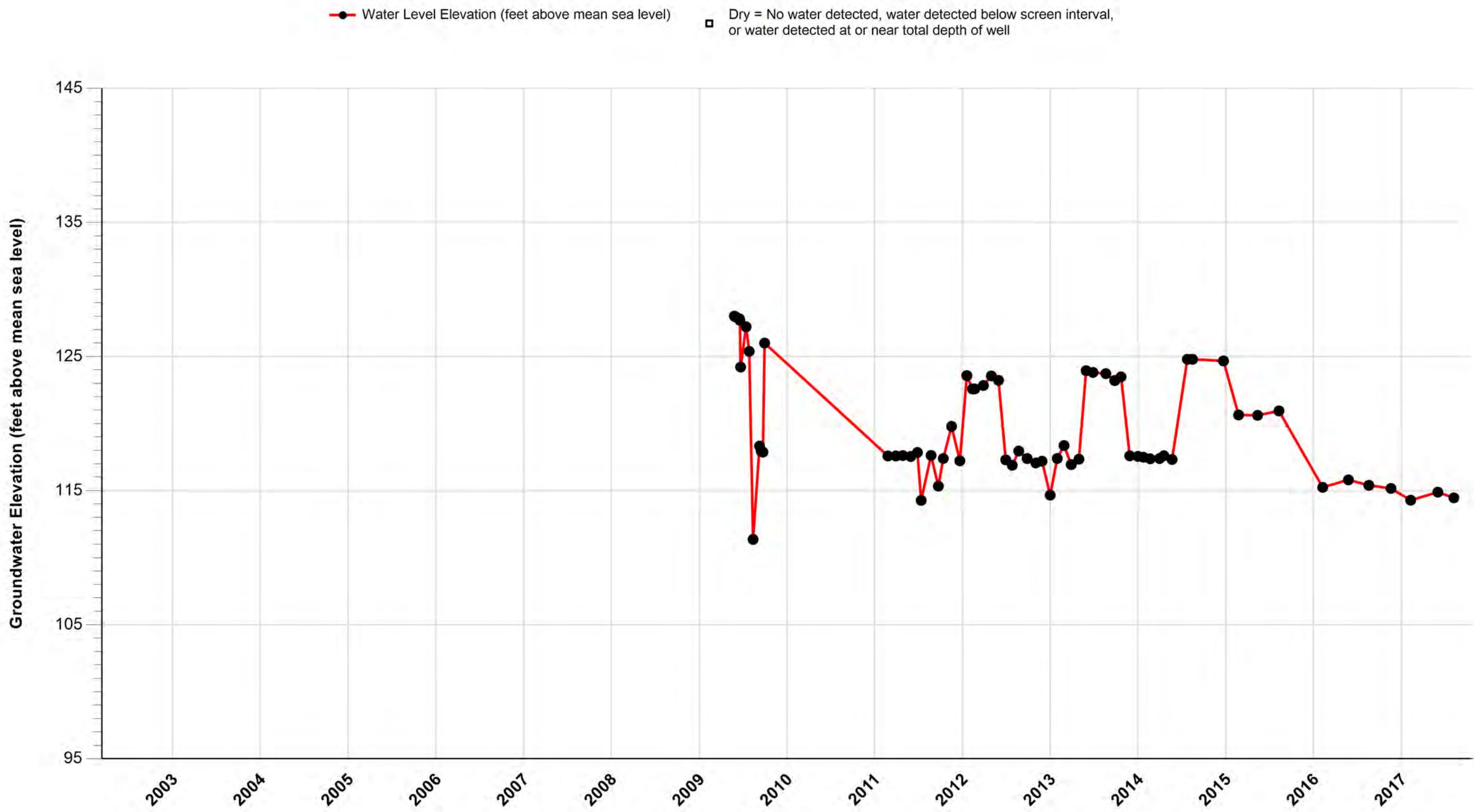


Attachment B, Figure B-3
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



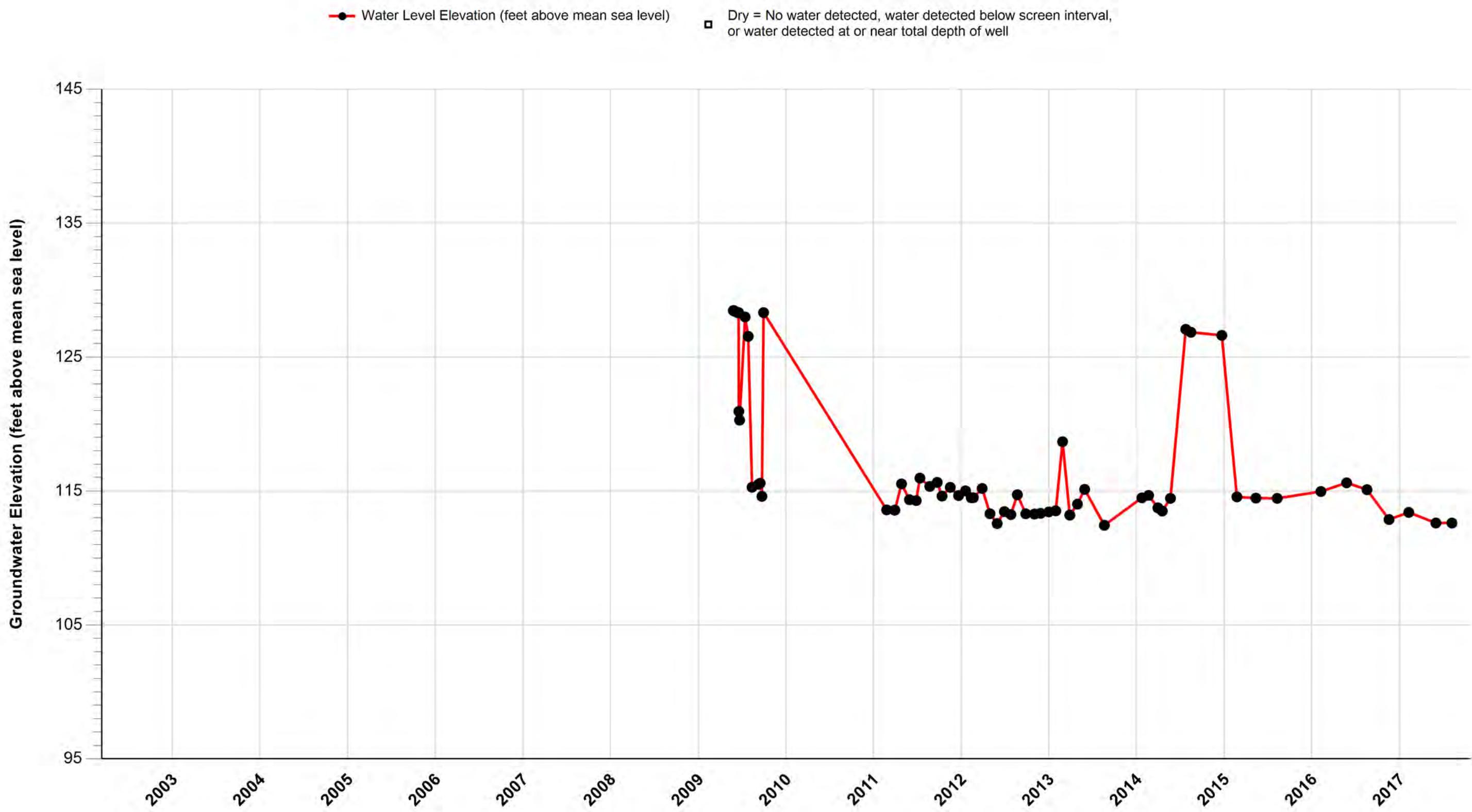
Attachment B, Figure B-4
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

EW-4



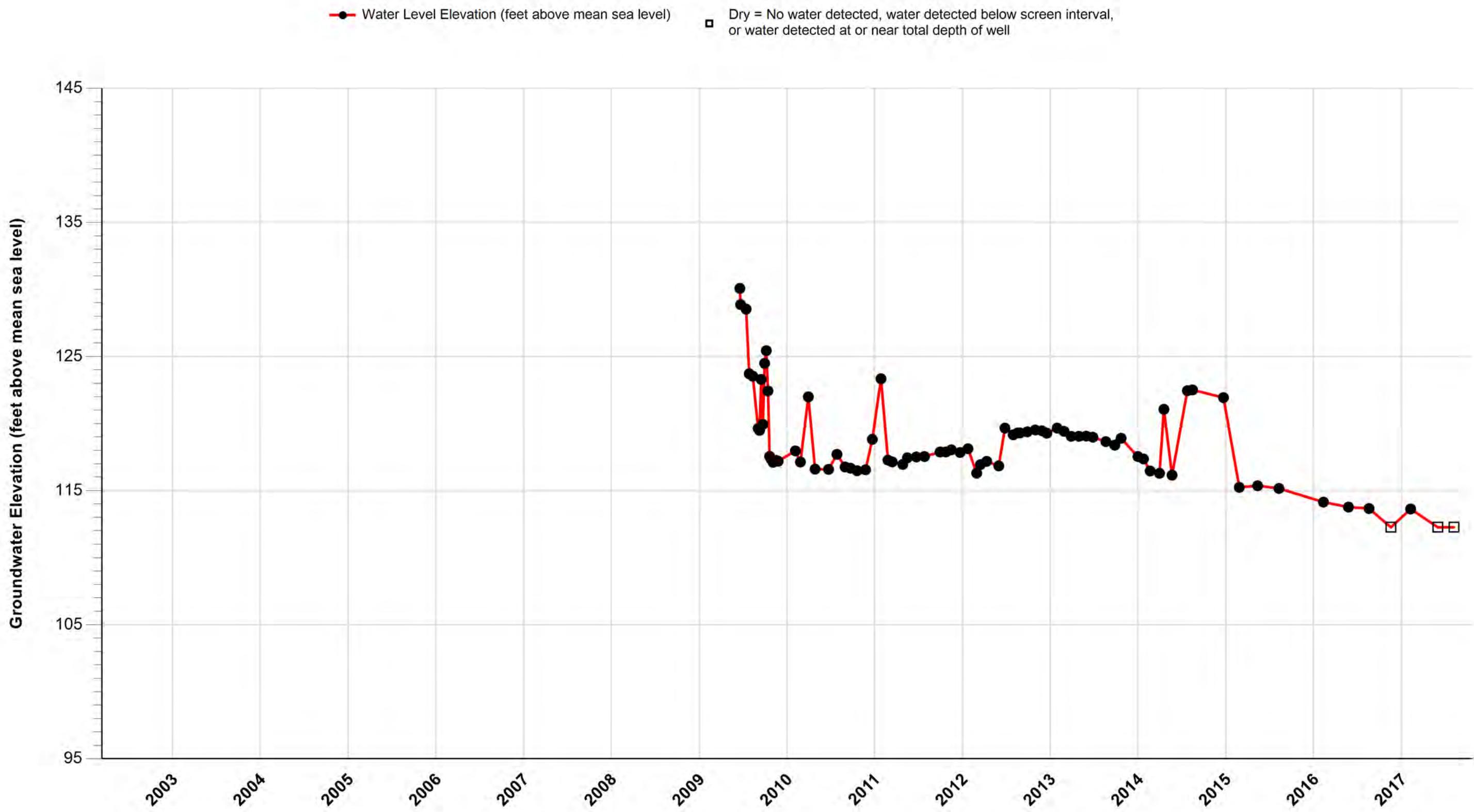
Attachment B, Figure B-5
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

EW-5



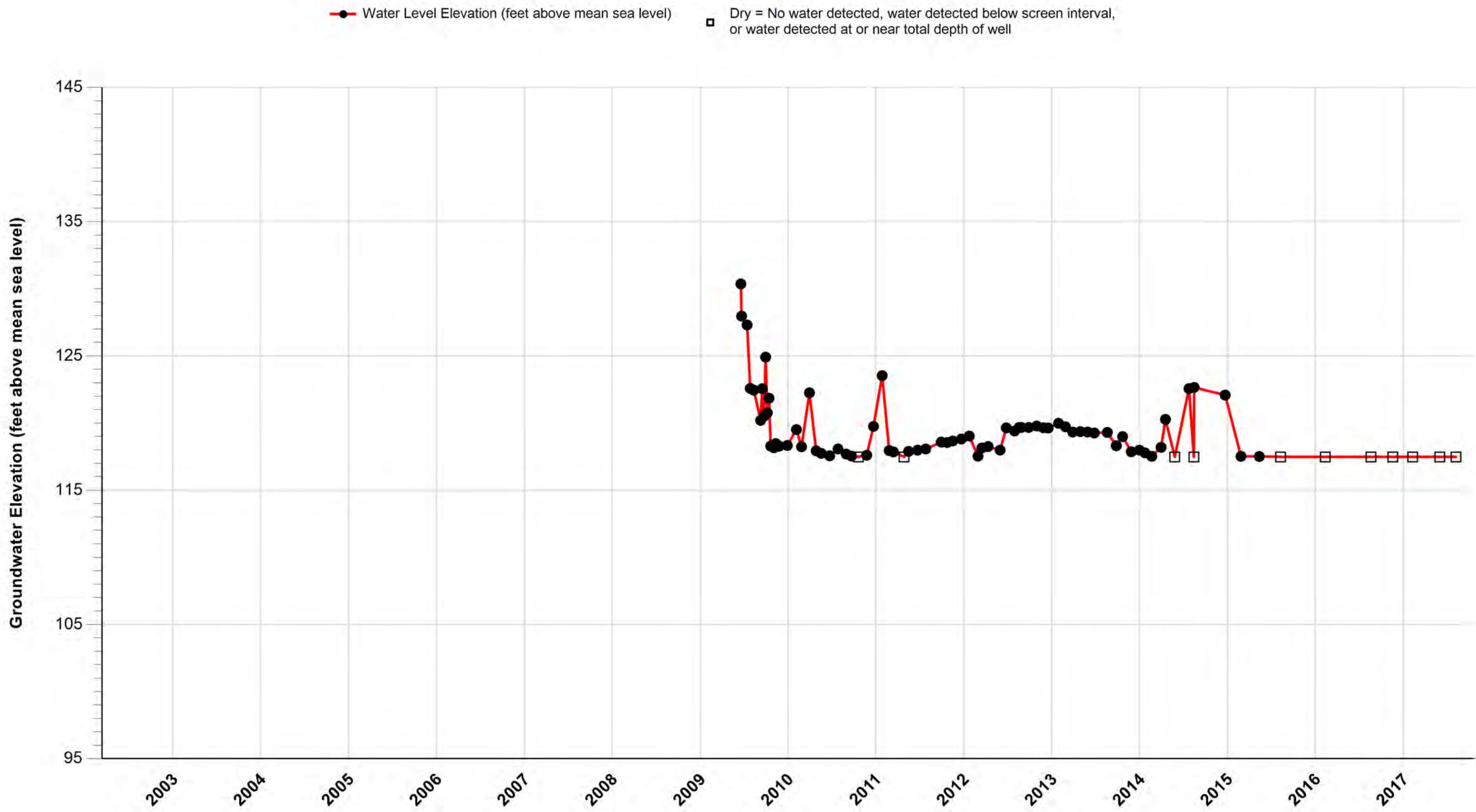
Attachment B, Figure B-6
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

PZ-1



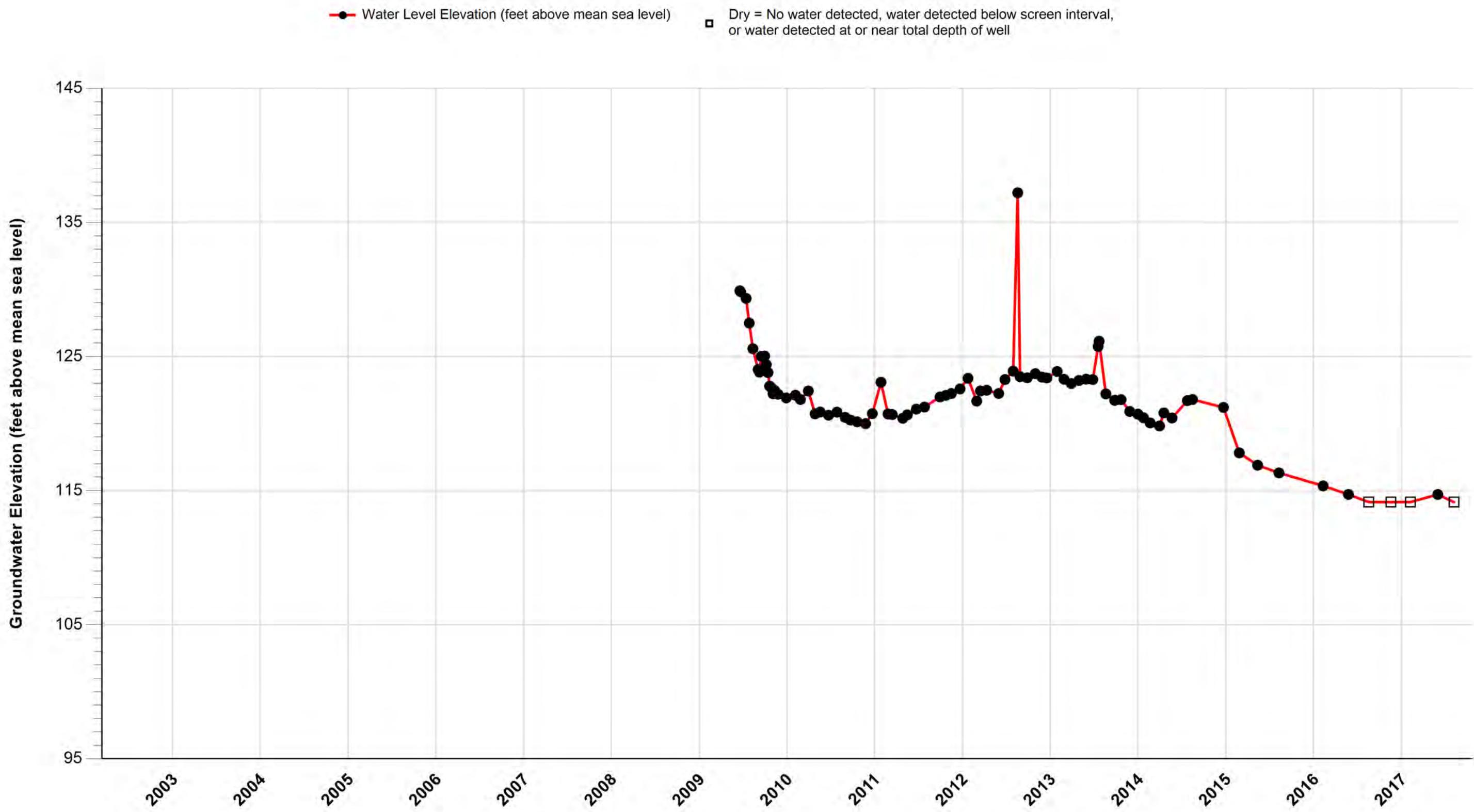
Attachment B, Figure B-7
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

PZ-2



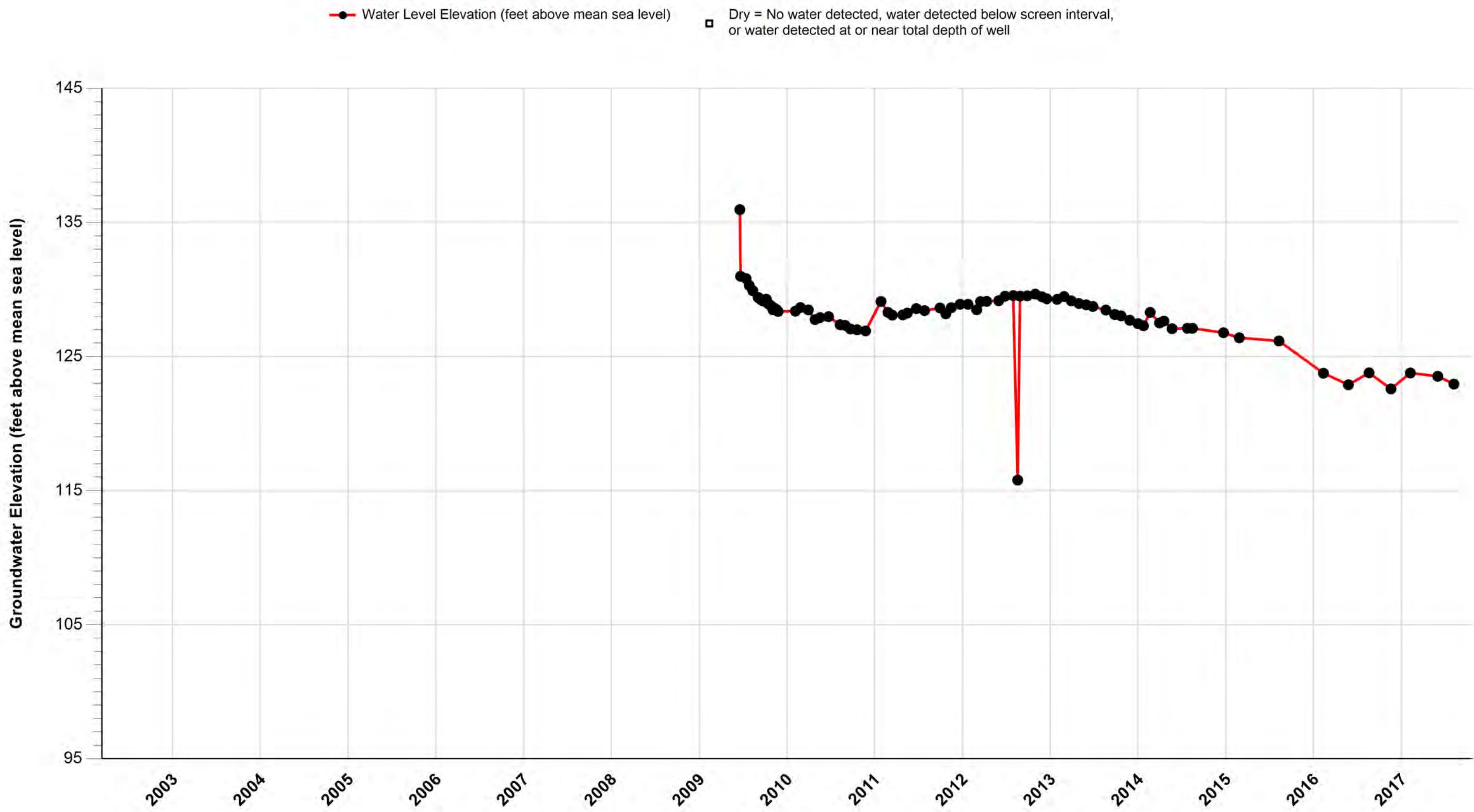
Attachment B, Figure B-8
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

PZ-3

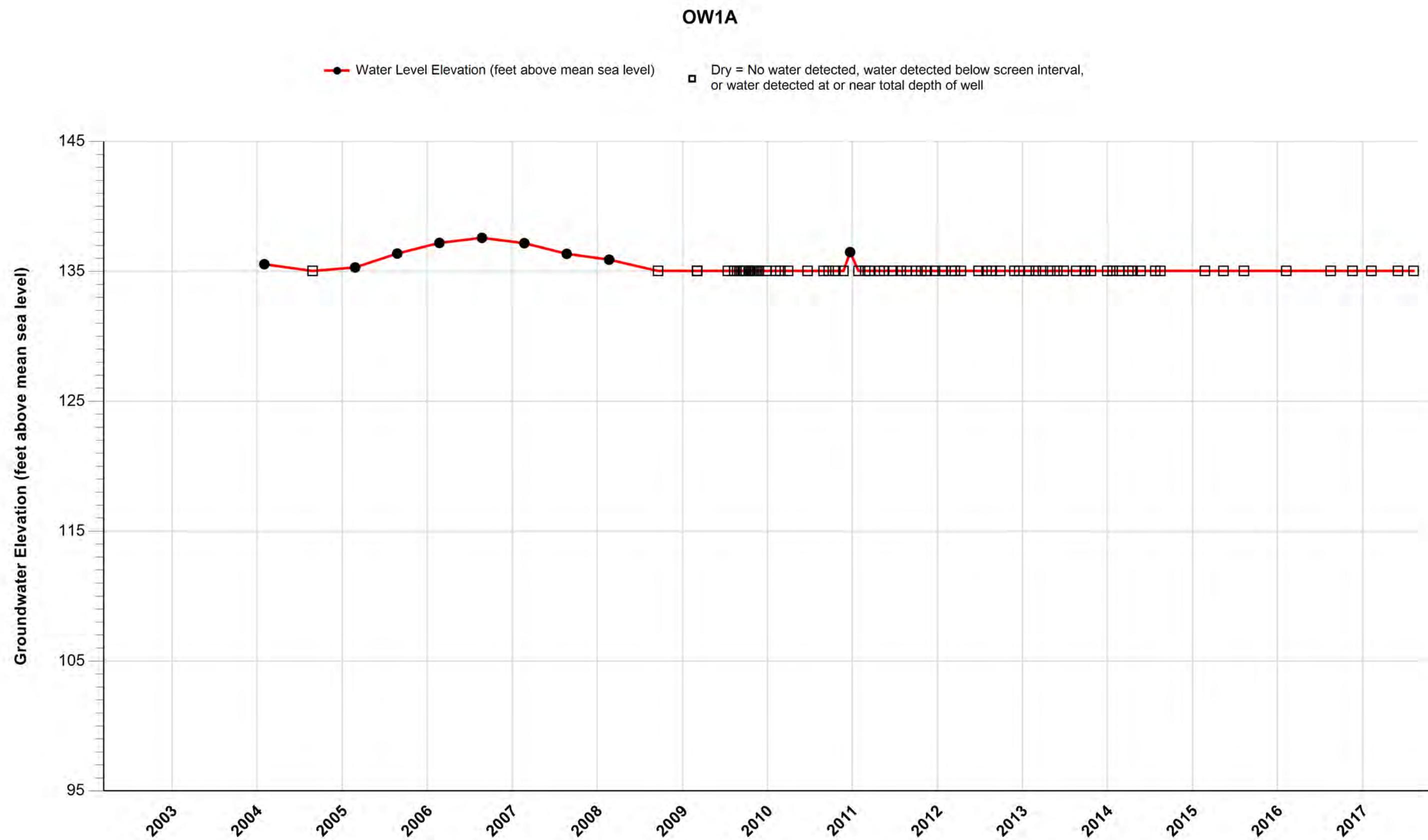


Attachment B, Figure B-9
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

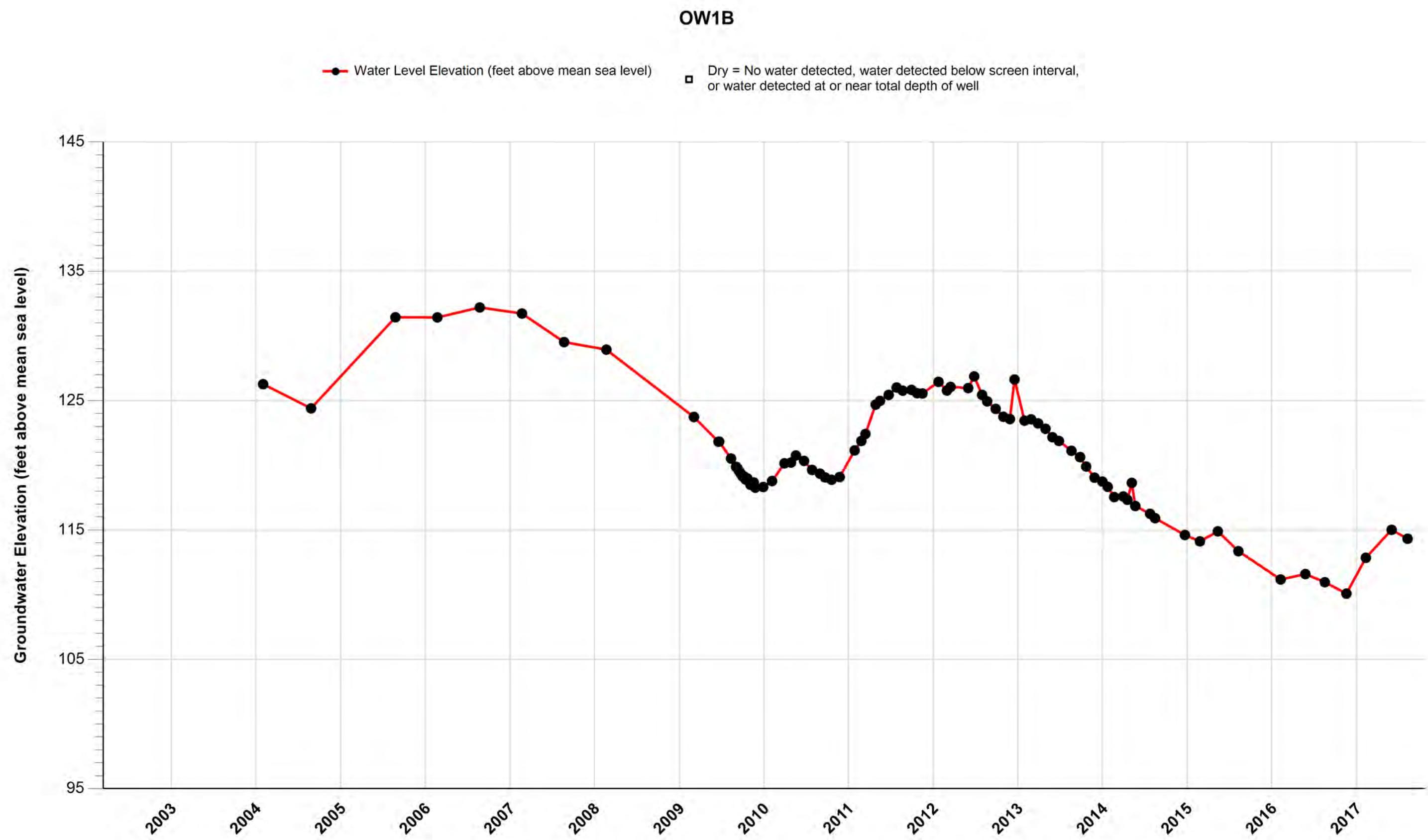
PZ-4



Attachment B, Figure B-10
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

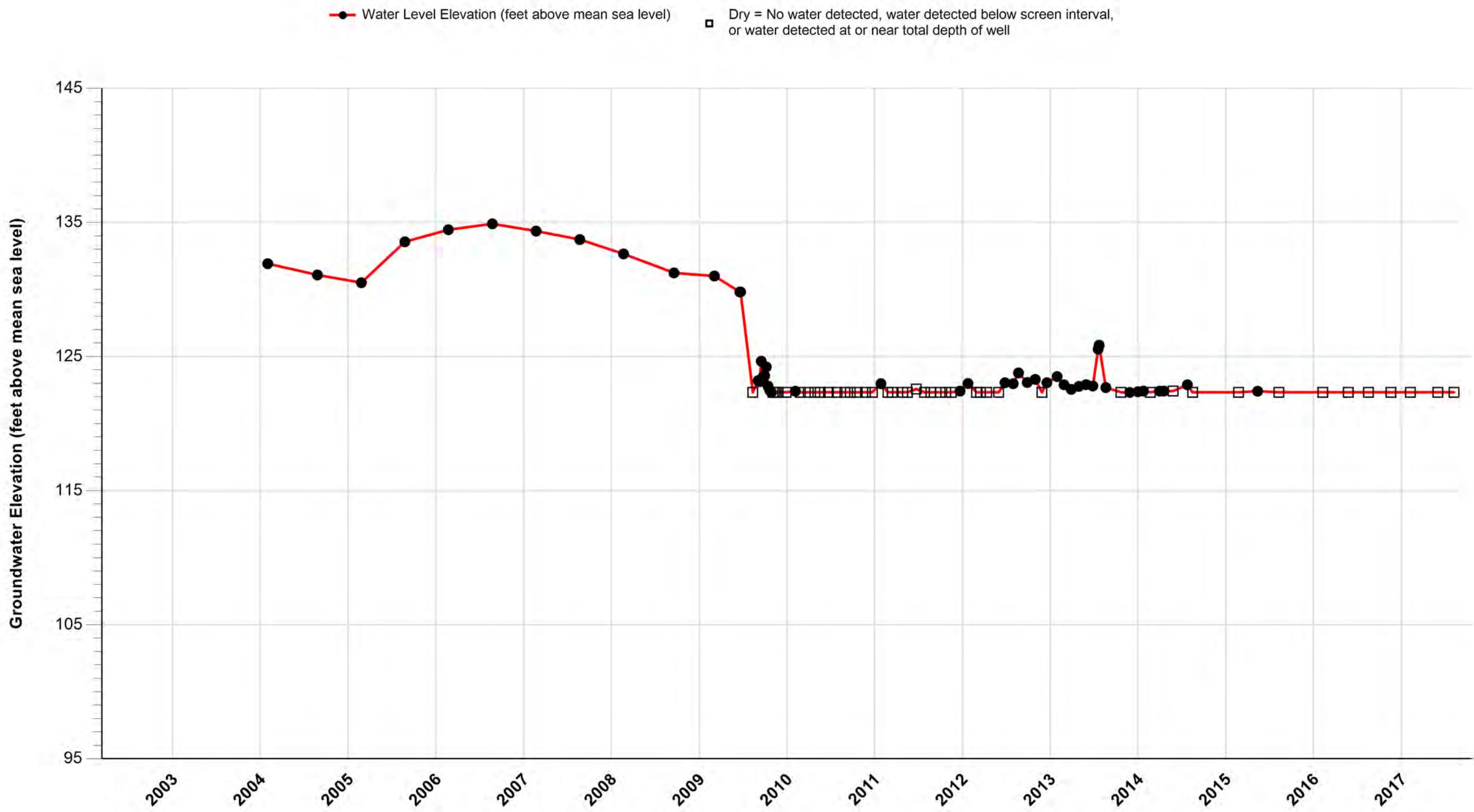


Attachment B, Figure B-11
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

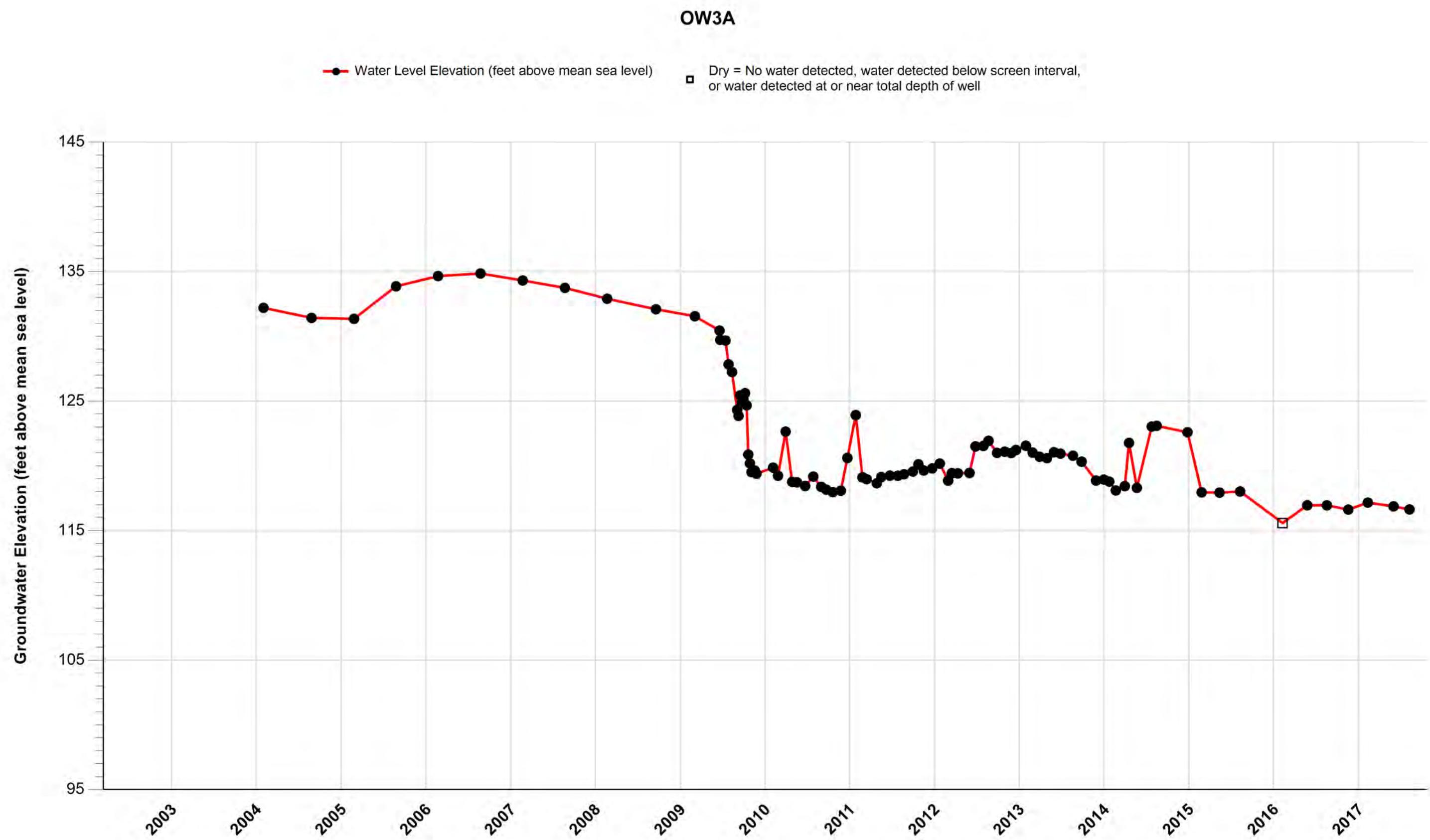


Attachment B, Figure B-12
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

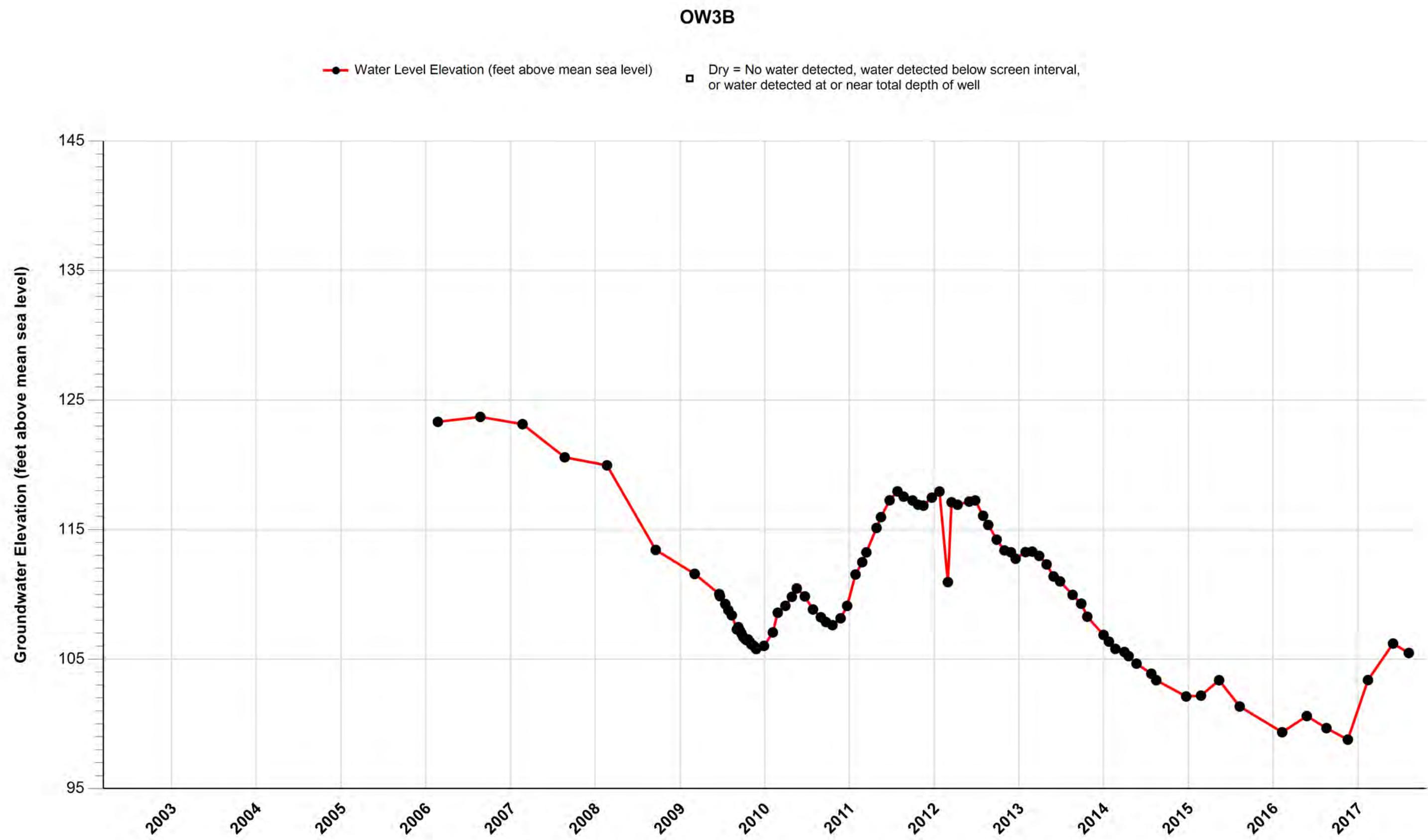
OW2



Attachment B, Figure B-13
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

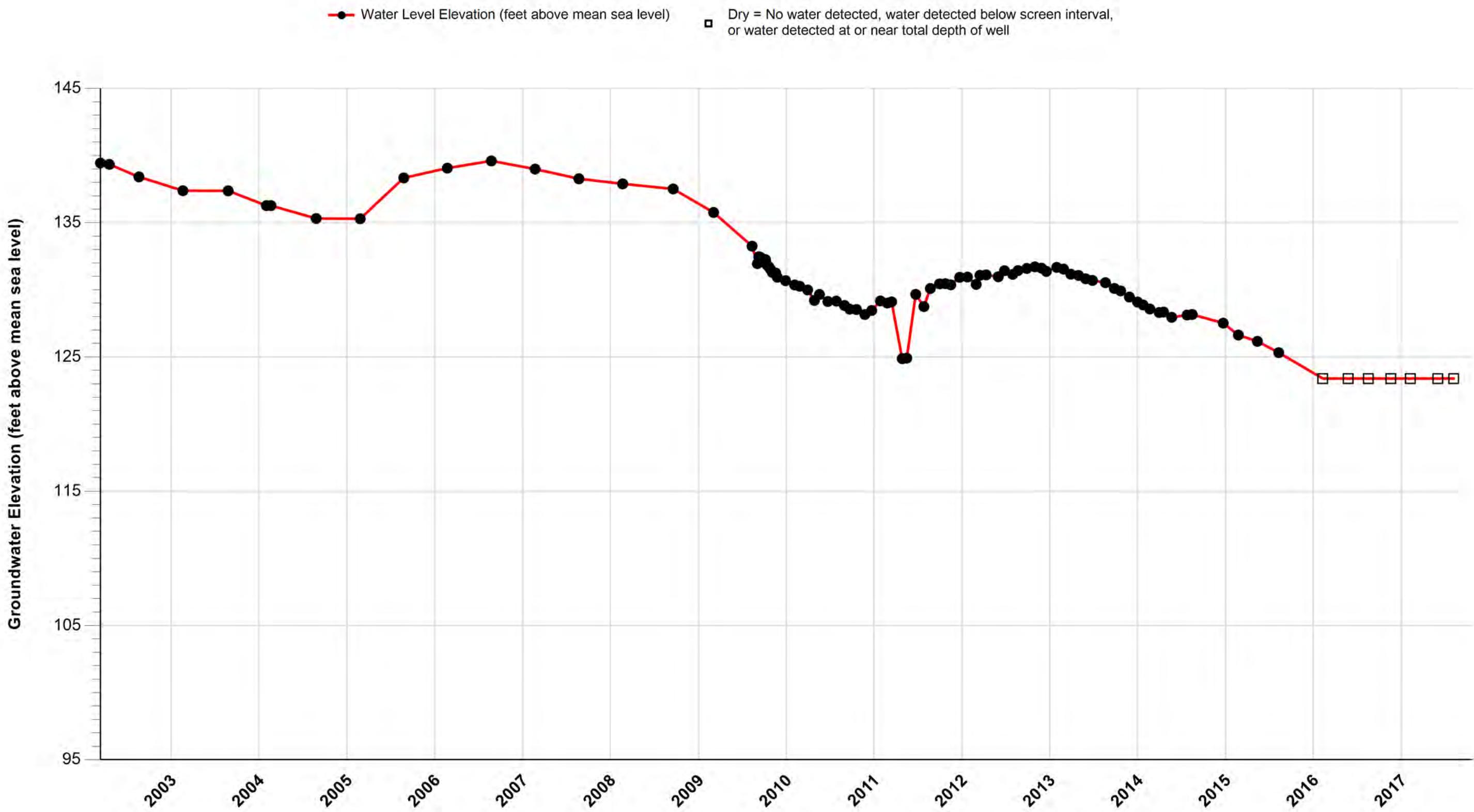


Attachment B, Figure B-14
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

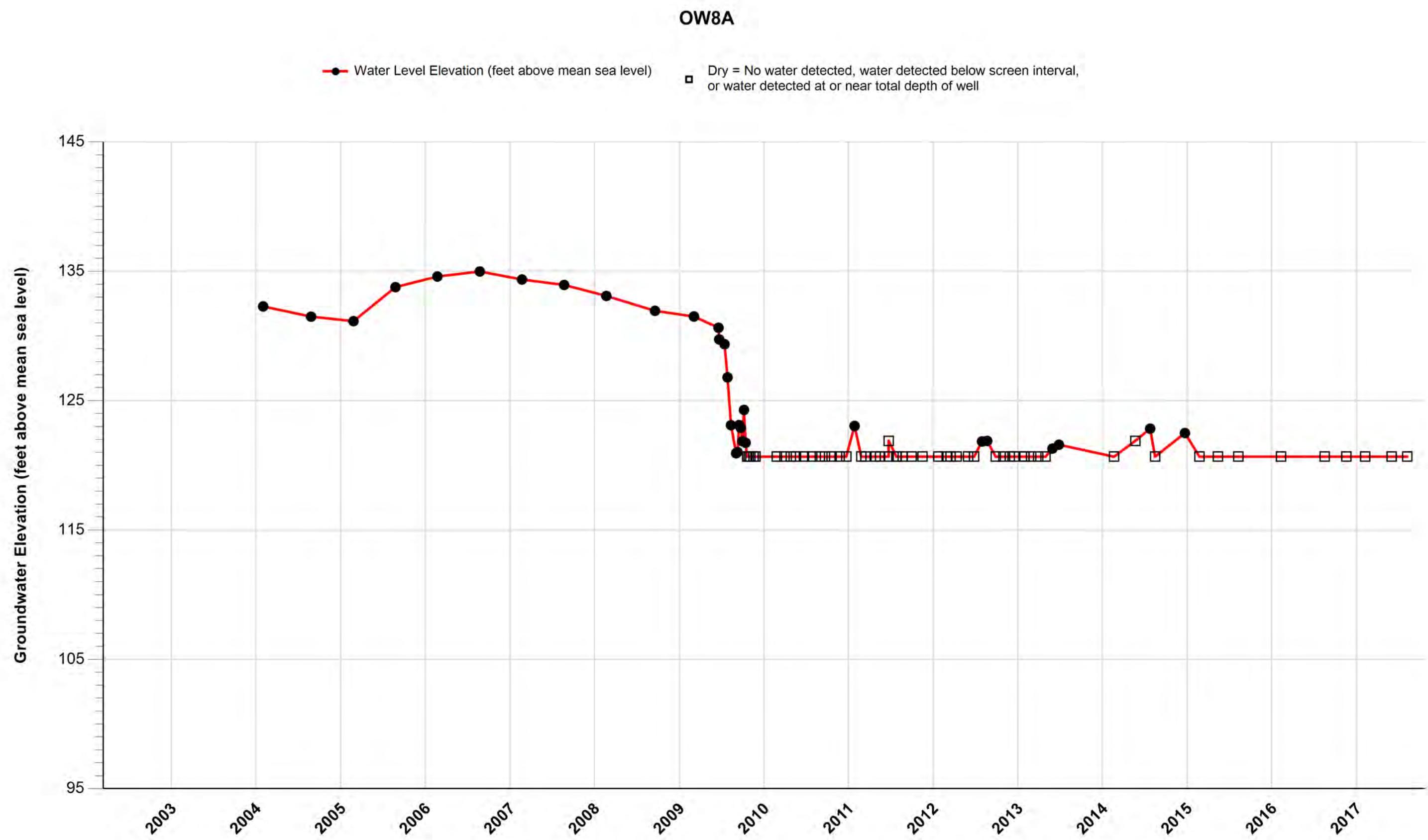


Attachment B, Figure B-15
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

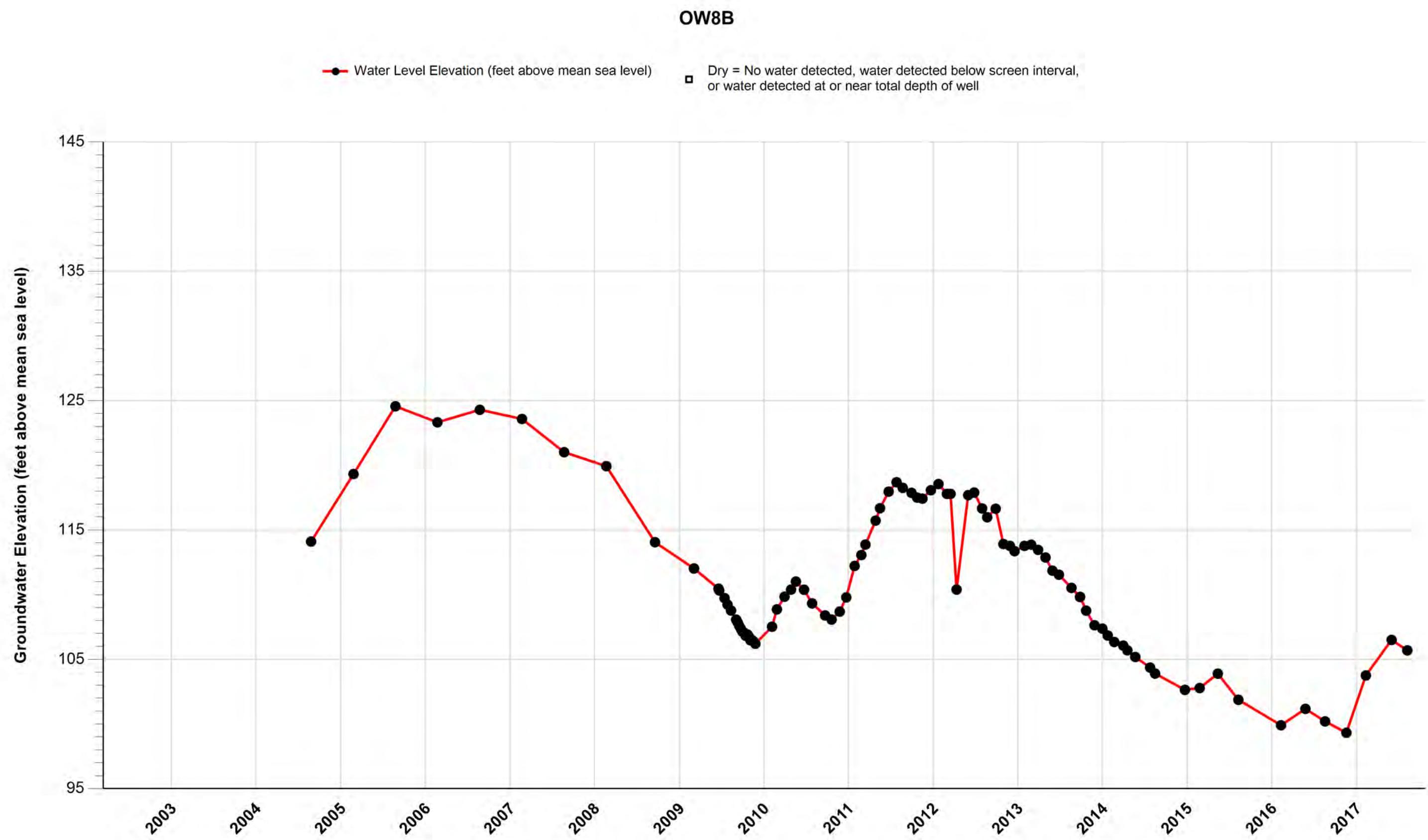
OW7



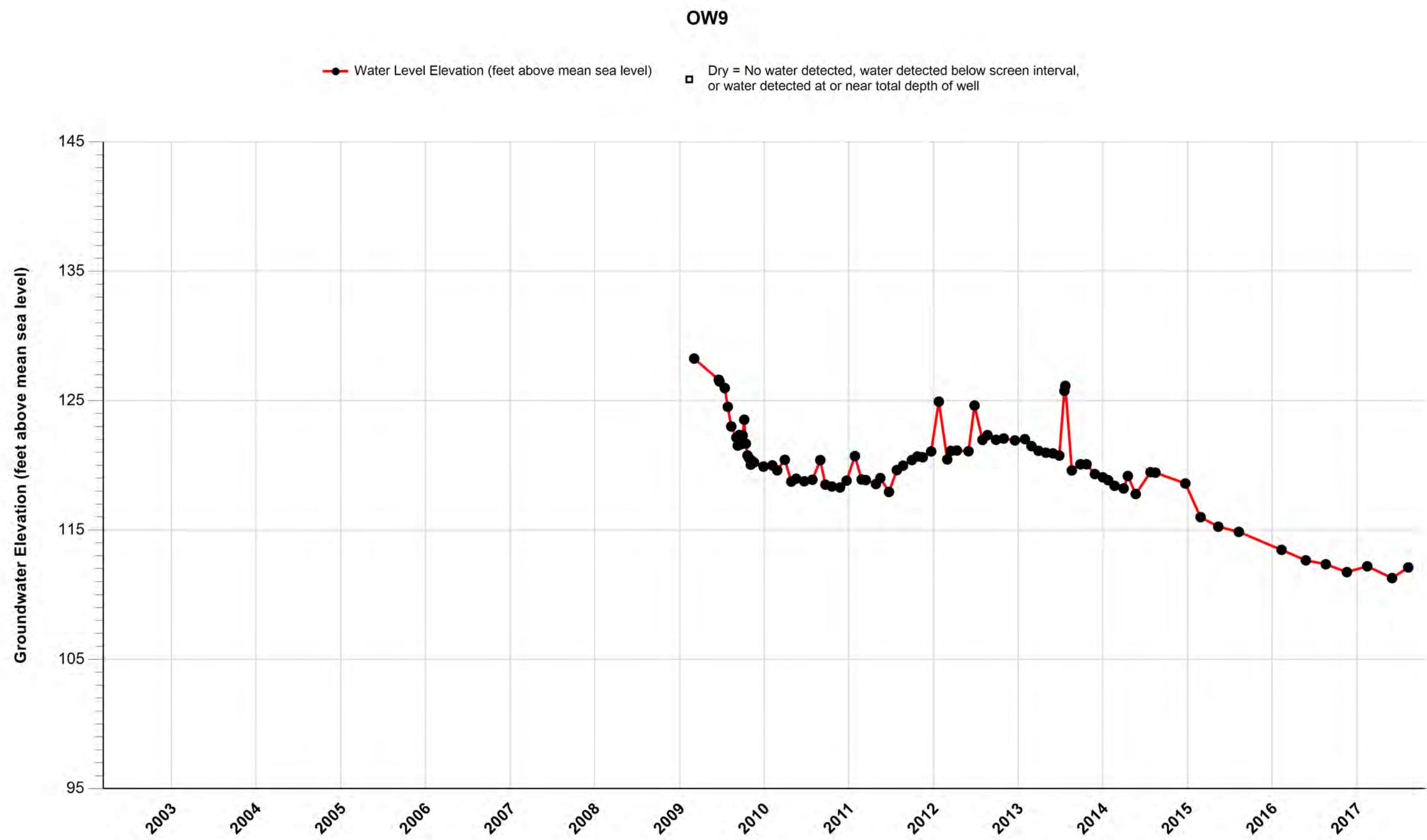
Attachment B, Figure B-16
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



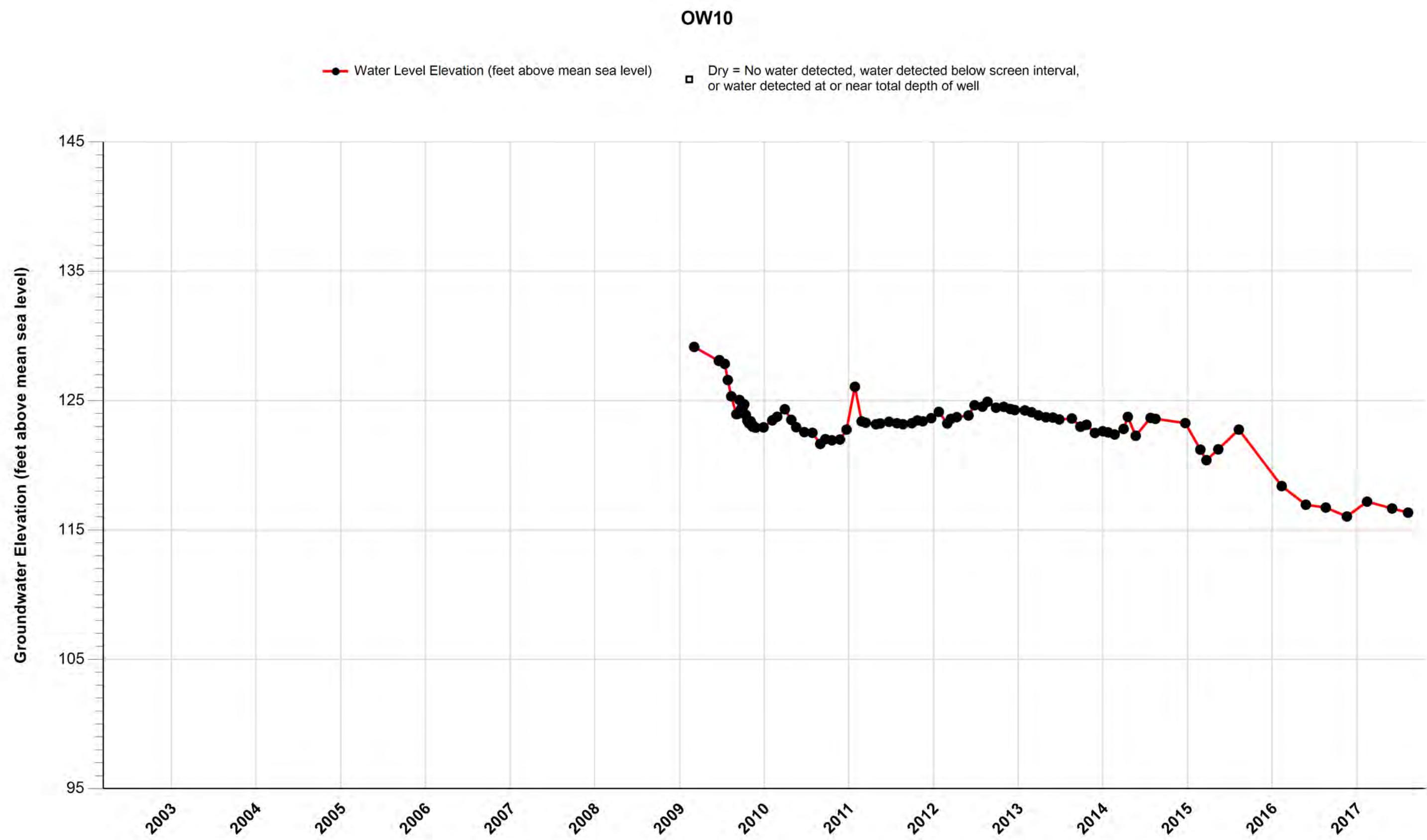
Attachment B, Figure B-17
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



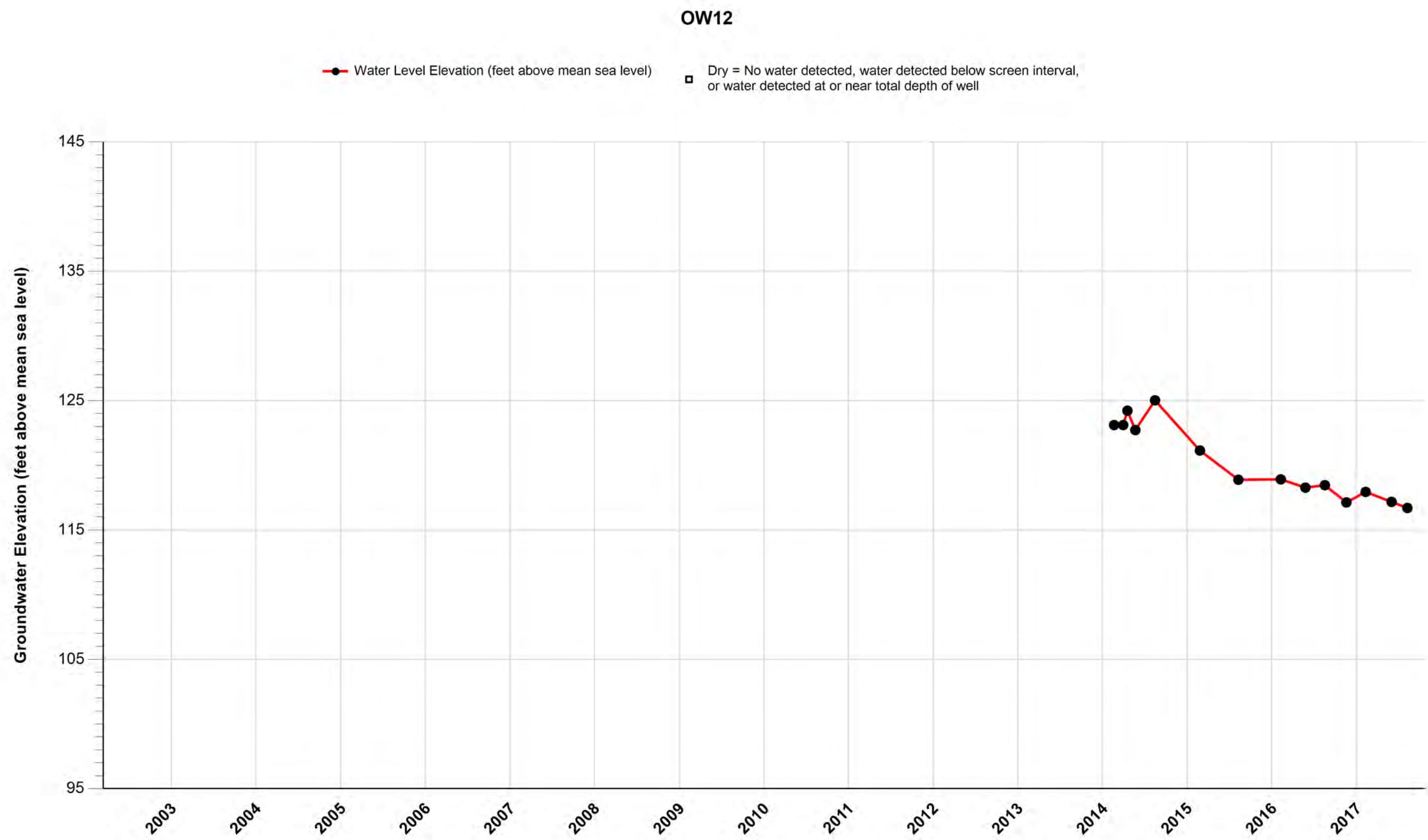
Attachment B, Figure B-18
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



Attachment B, Figure B-19
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data

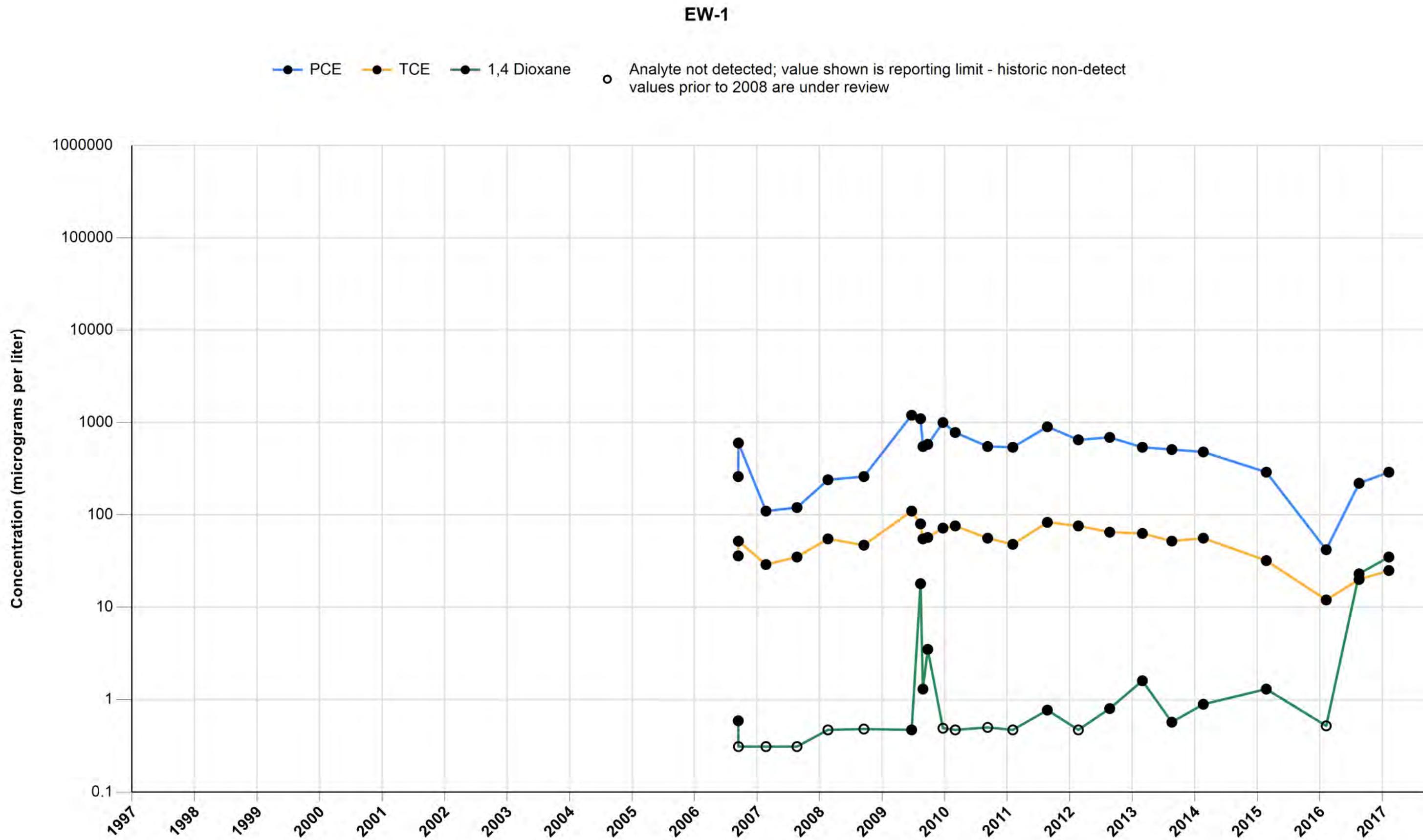


Attachment B, Figure B-20
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



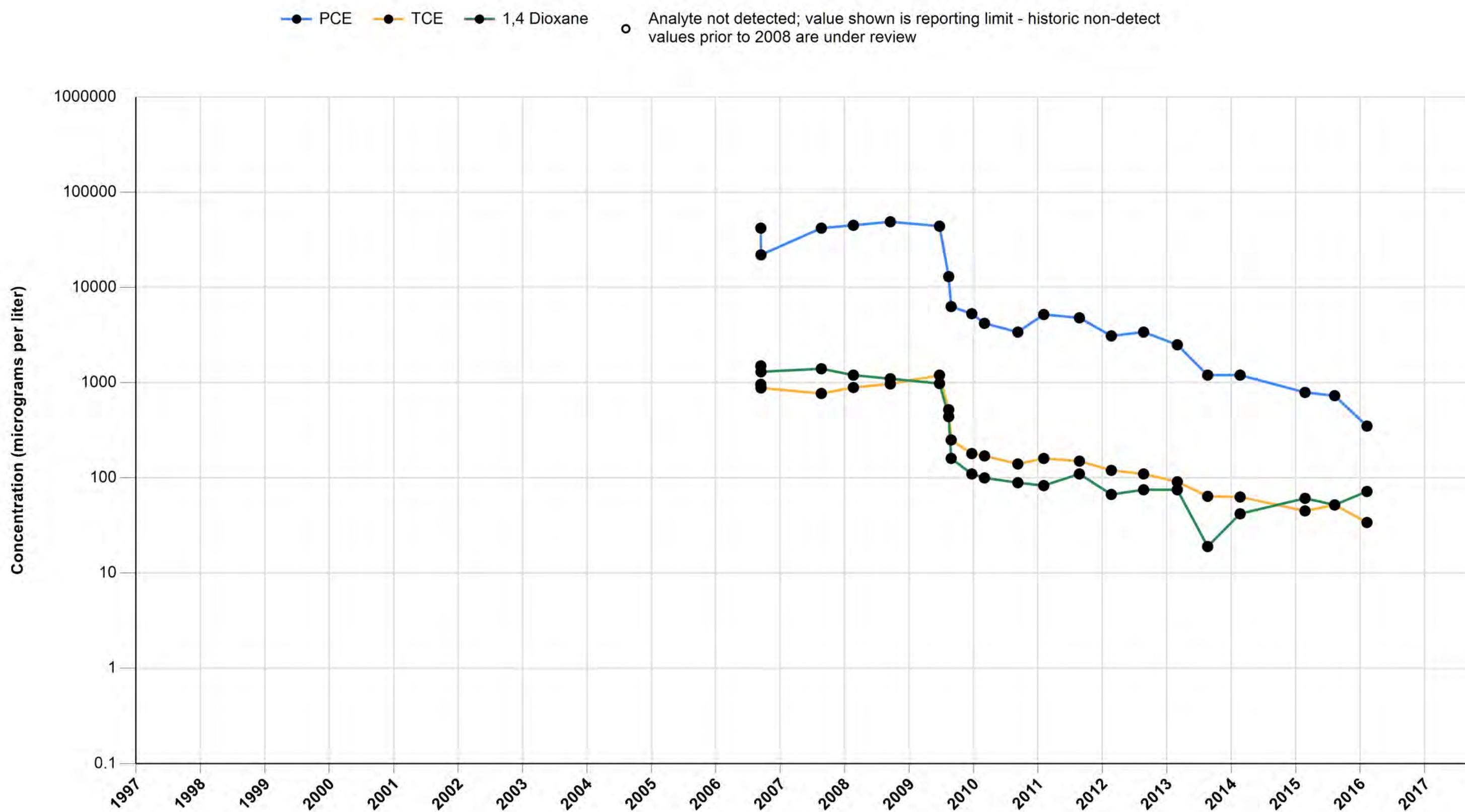
Attachment B, Figure B-21
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-1



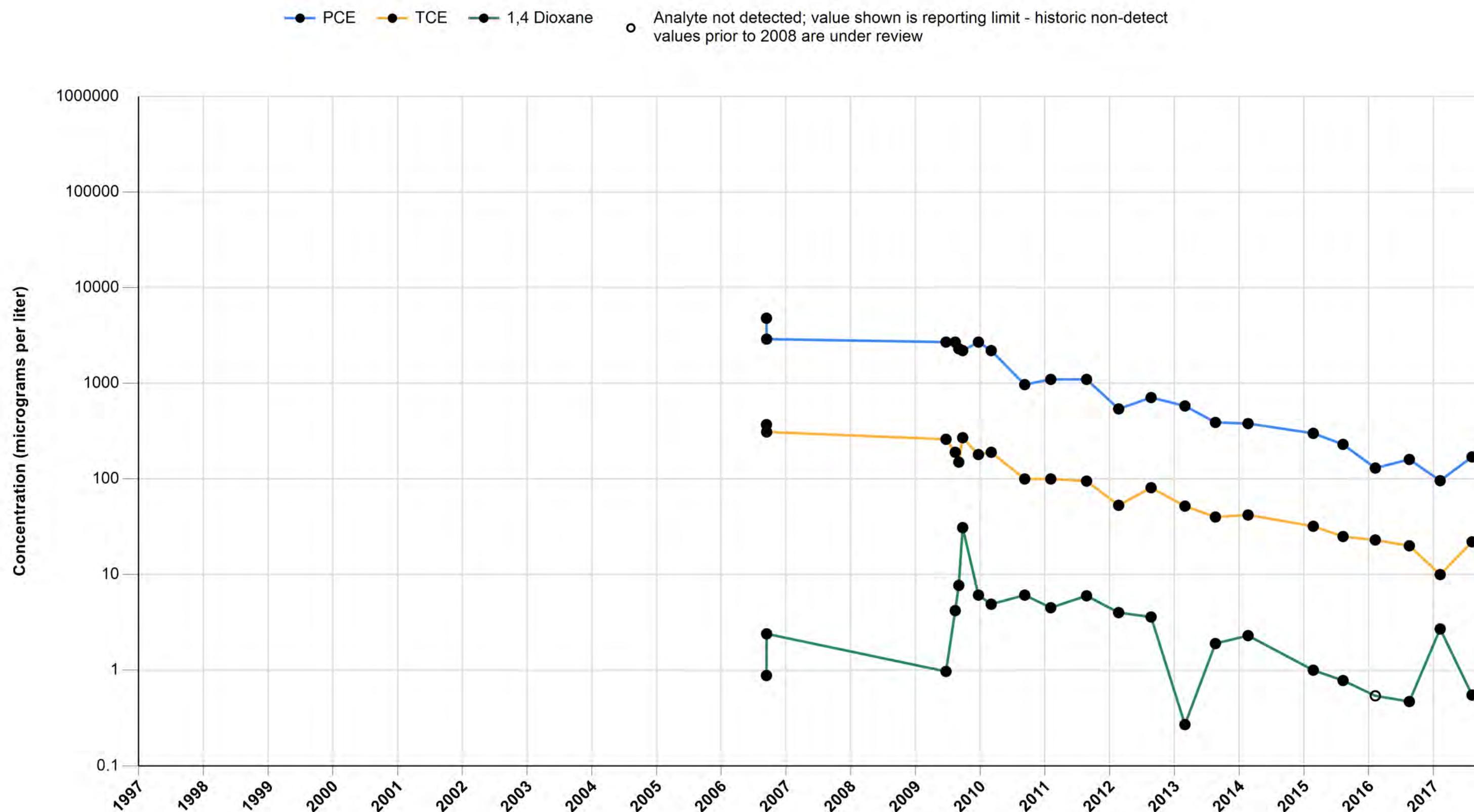
Attachment B, Figure B-22
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-2



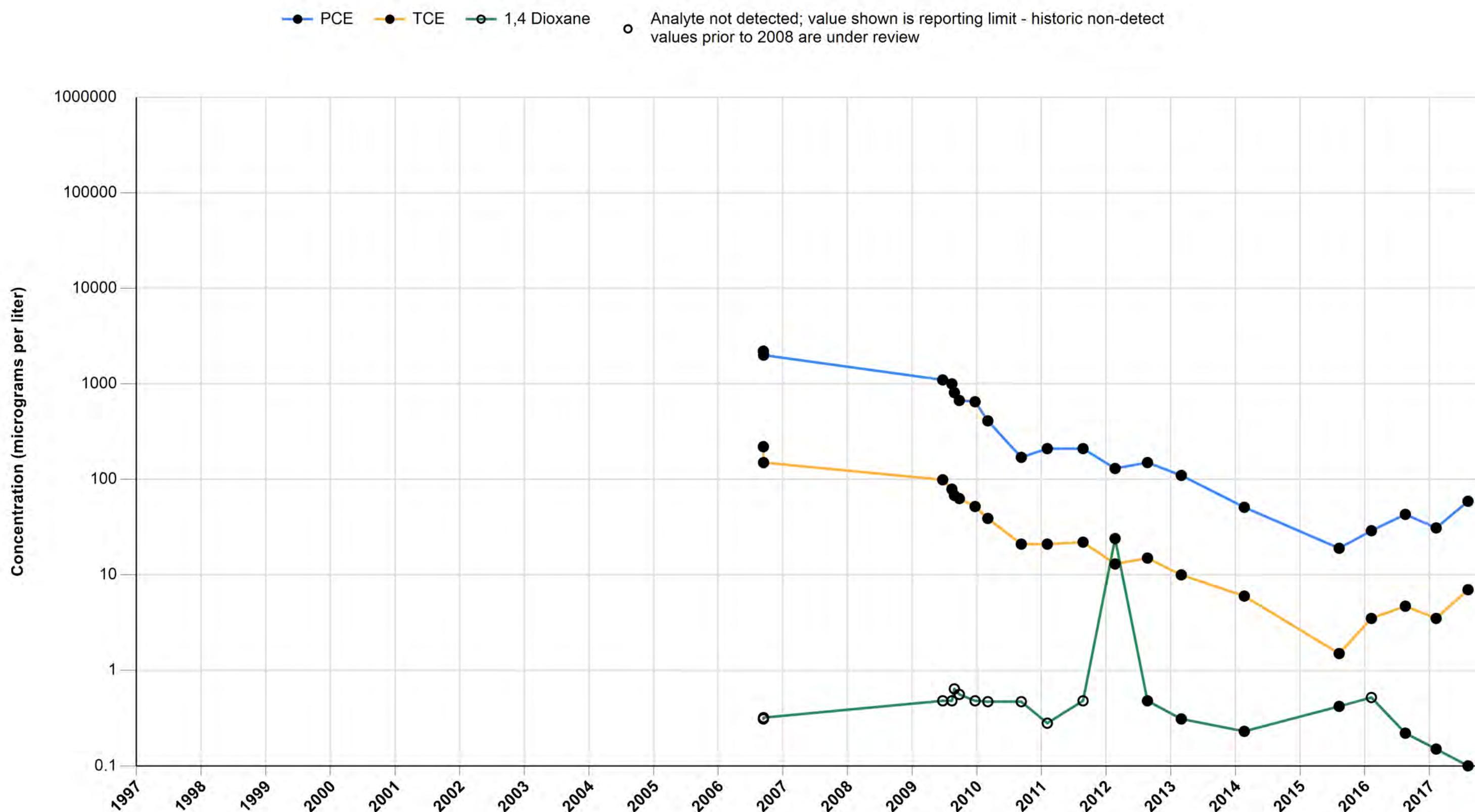
Attachment B, Figure B-23
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-3



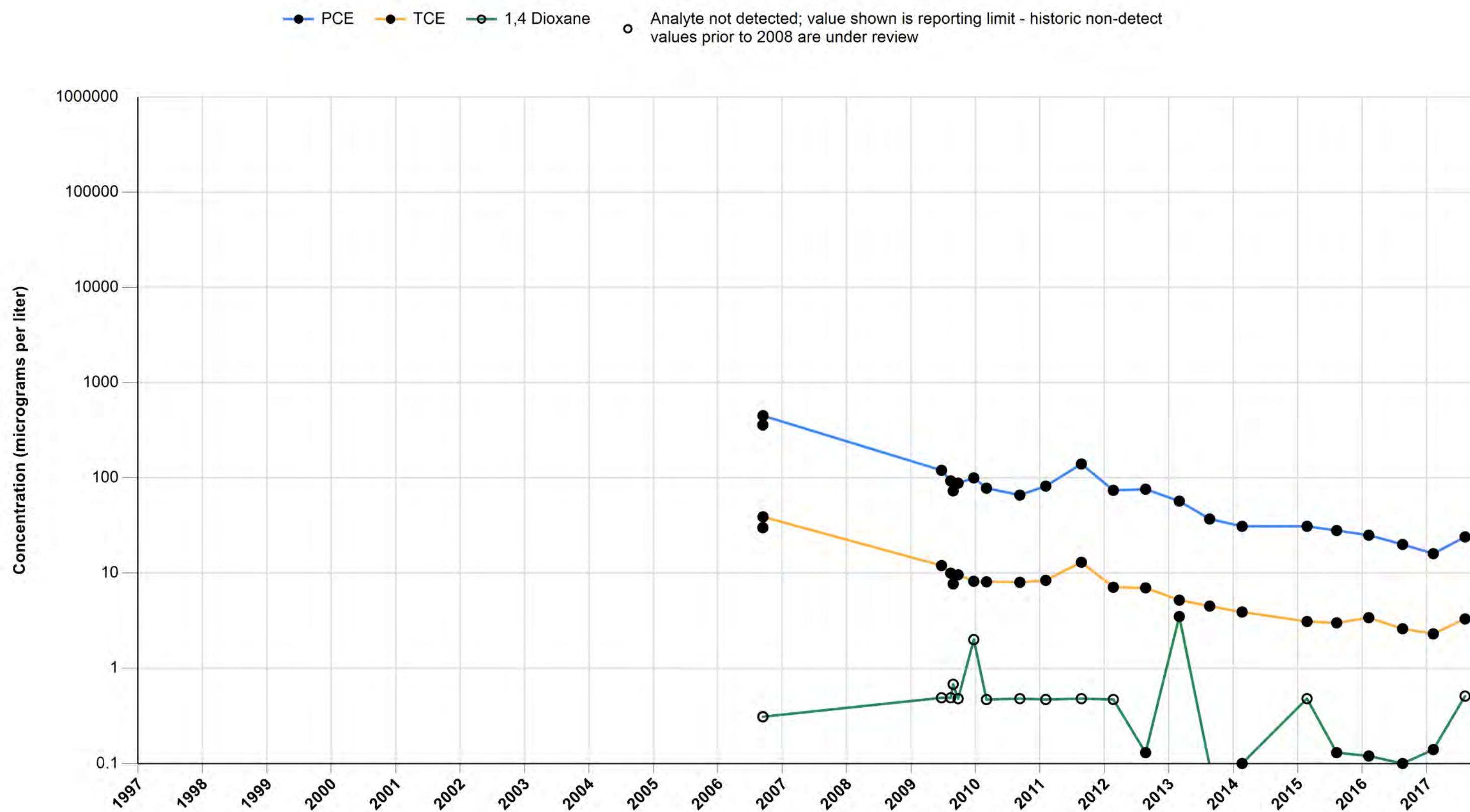
Attachment B, Figure B-24
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-4



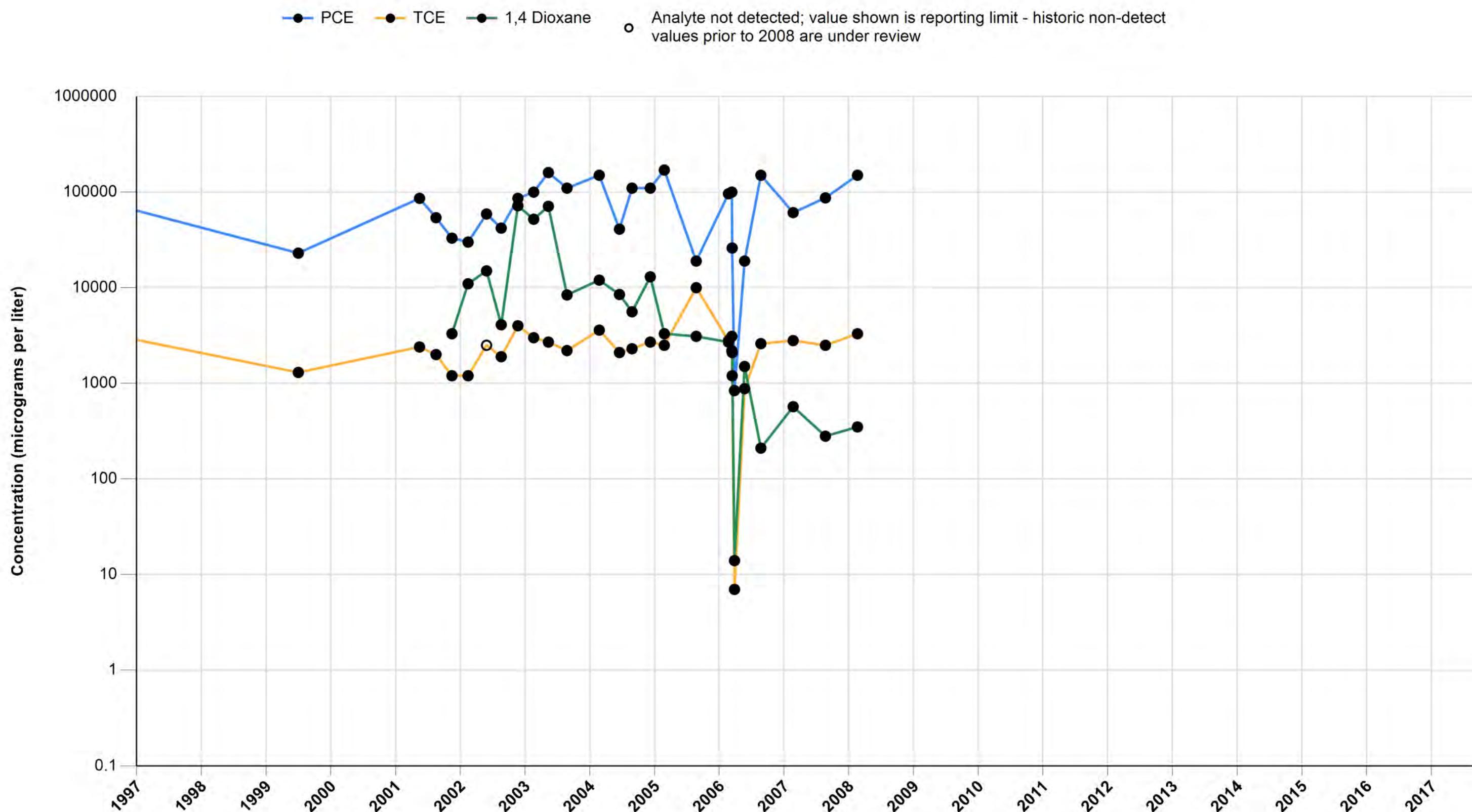
Attachment B, Figure B-25
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-5



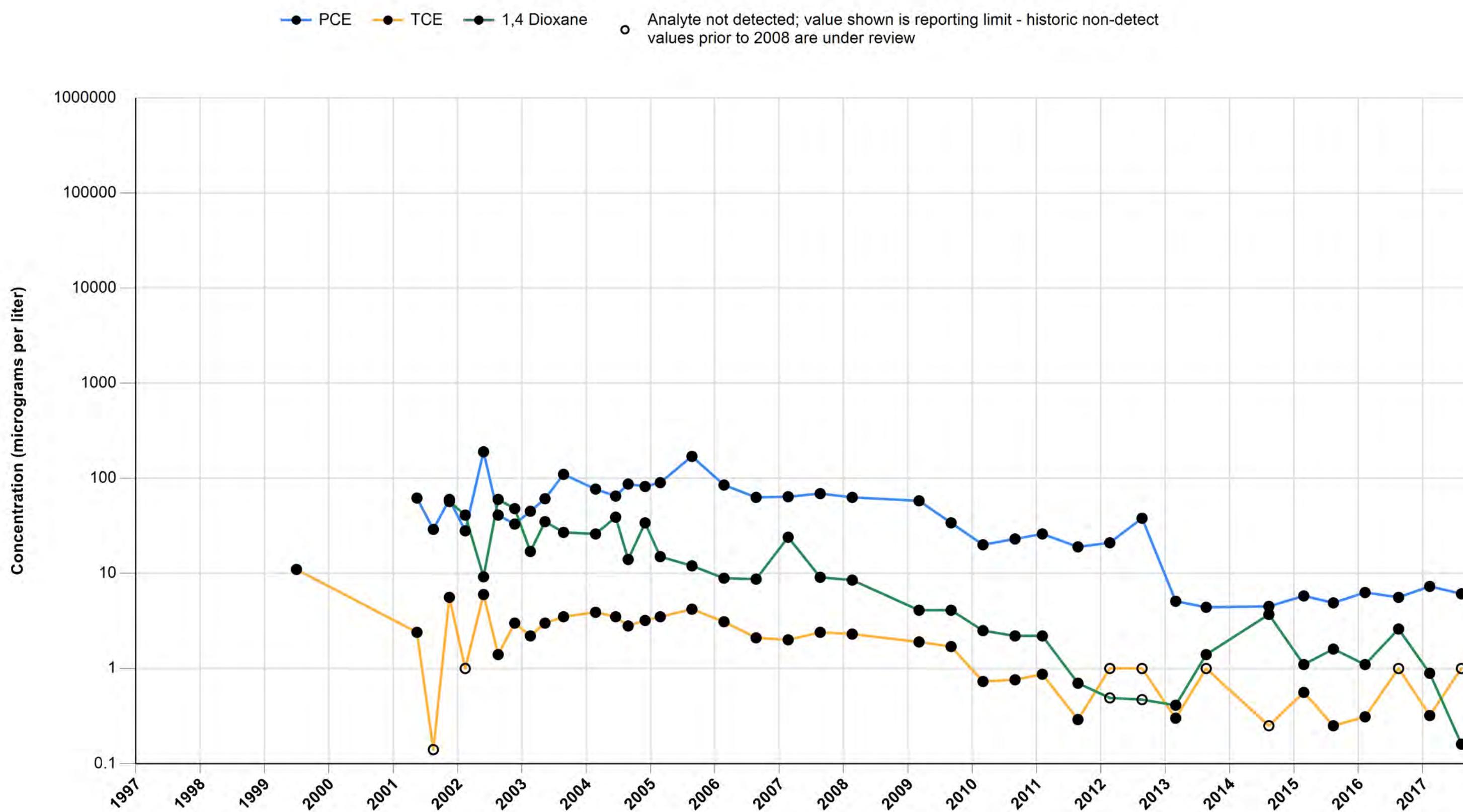
Attachment B, Figure B-26
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW1A



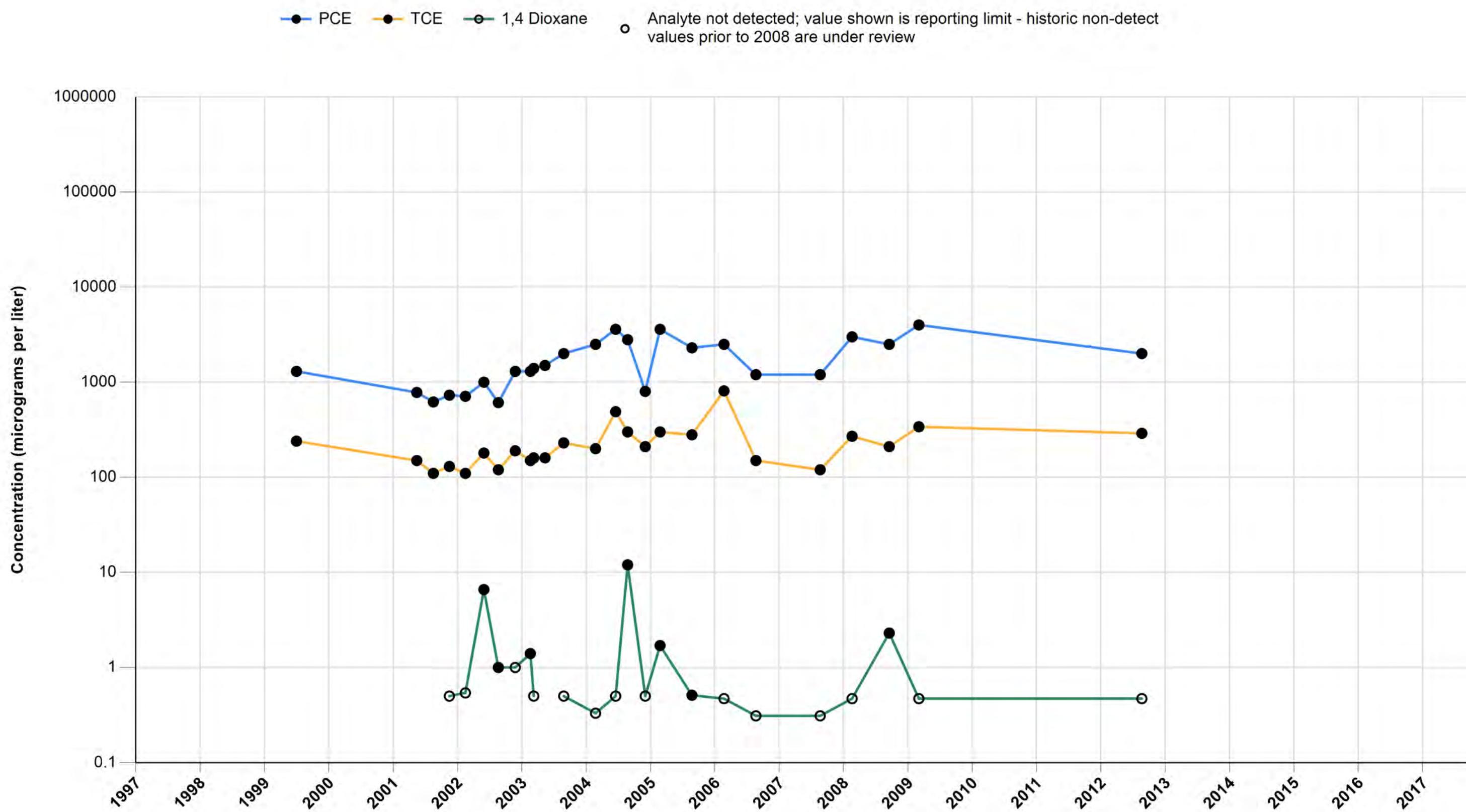
Attachment B, Figure B-27
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW1b



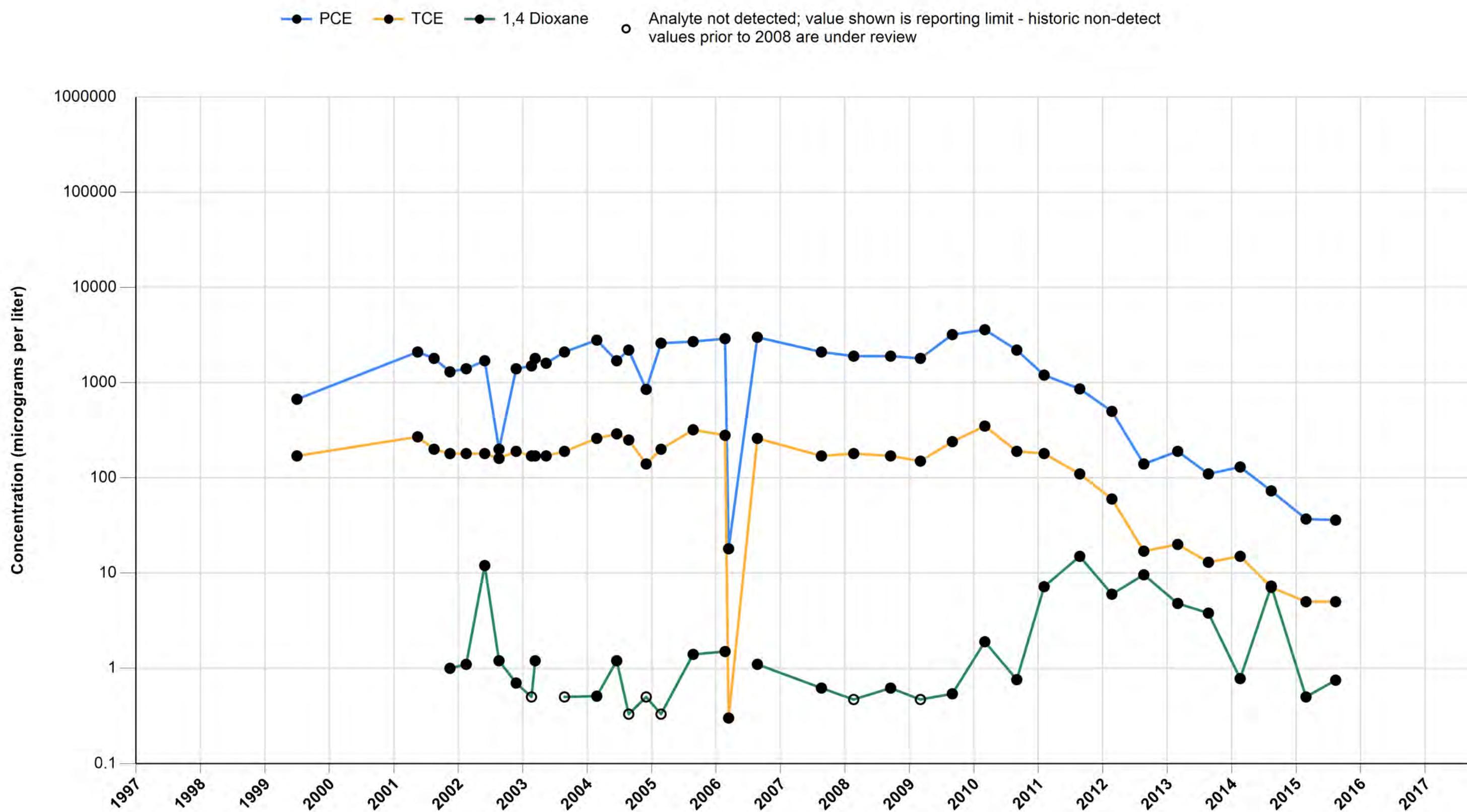
Attachment B, Figure B-28
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW2



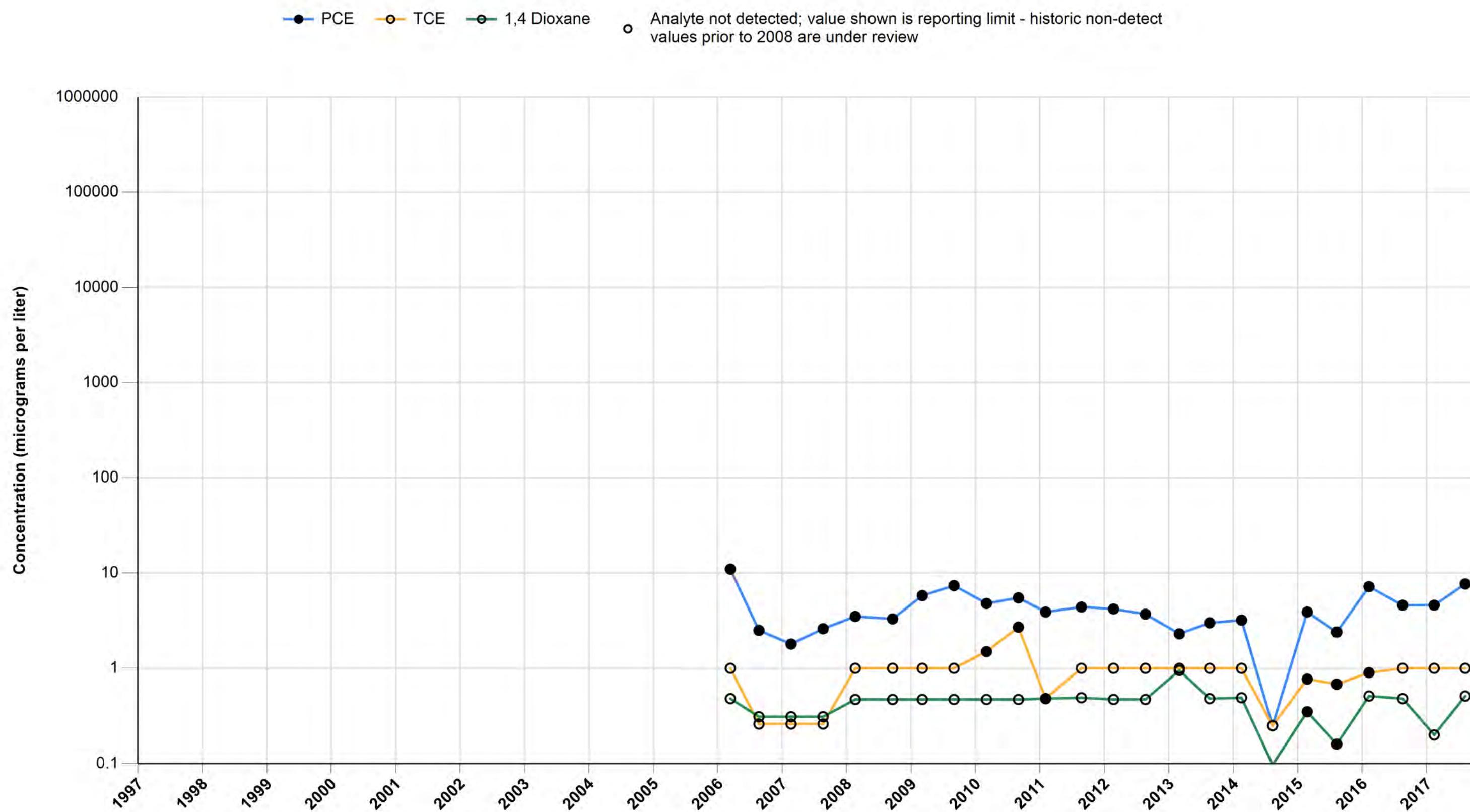
Attachment B, Figure B-29
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW3A



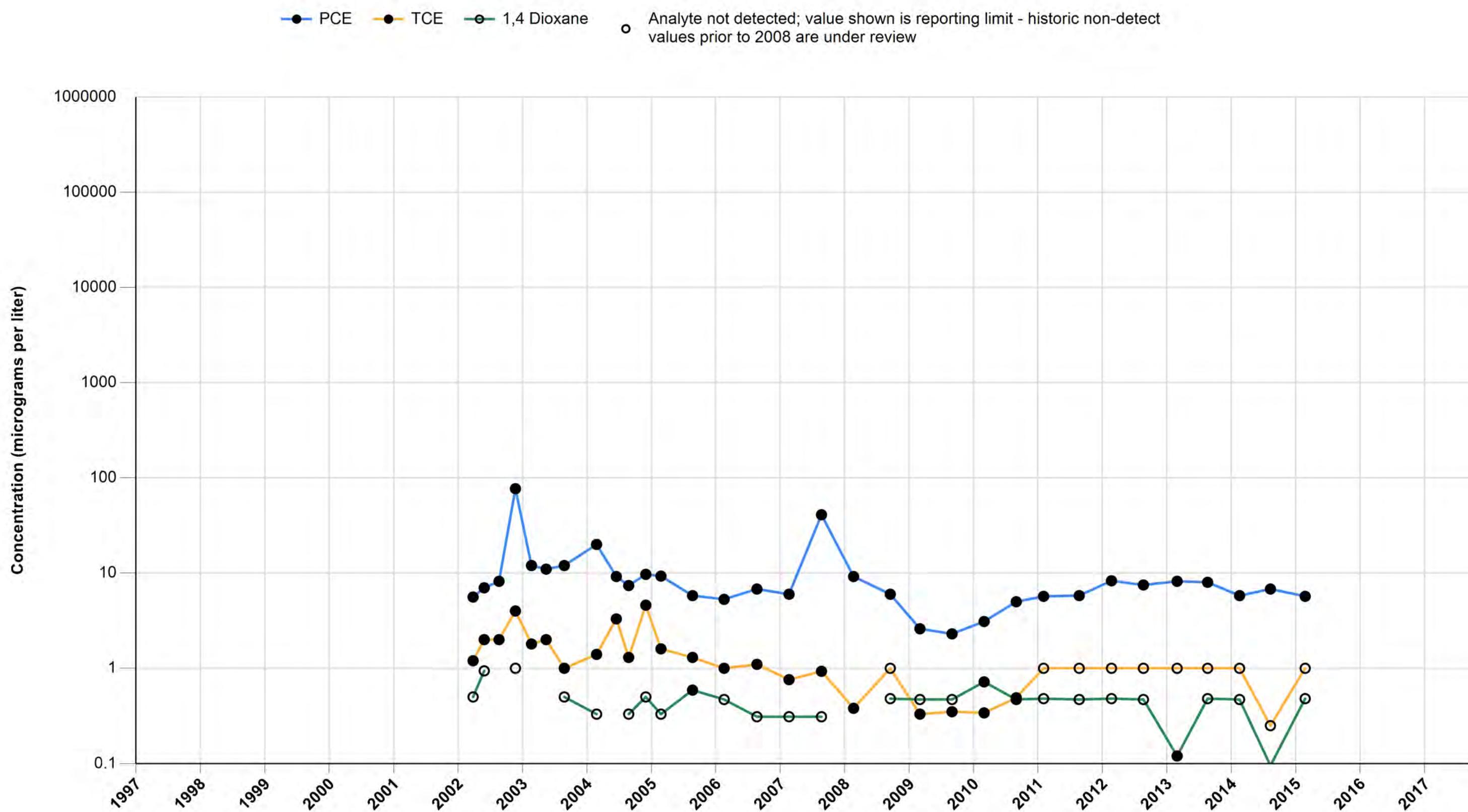
Attachment B, Figure B-30
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW3B



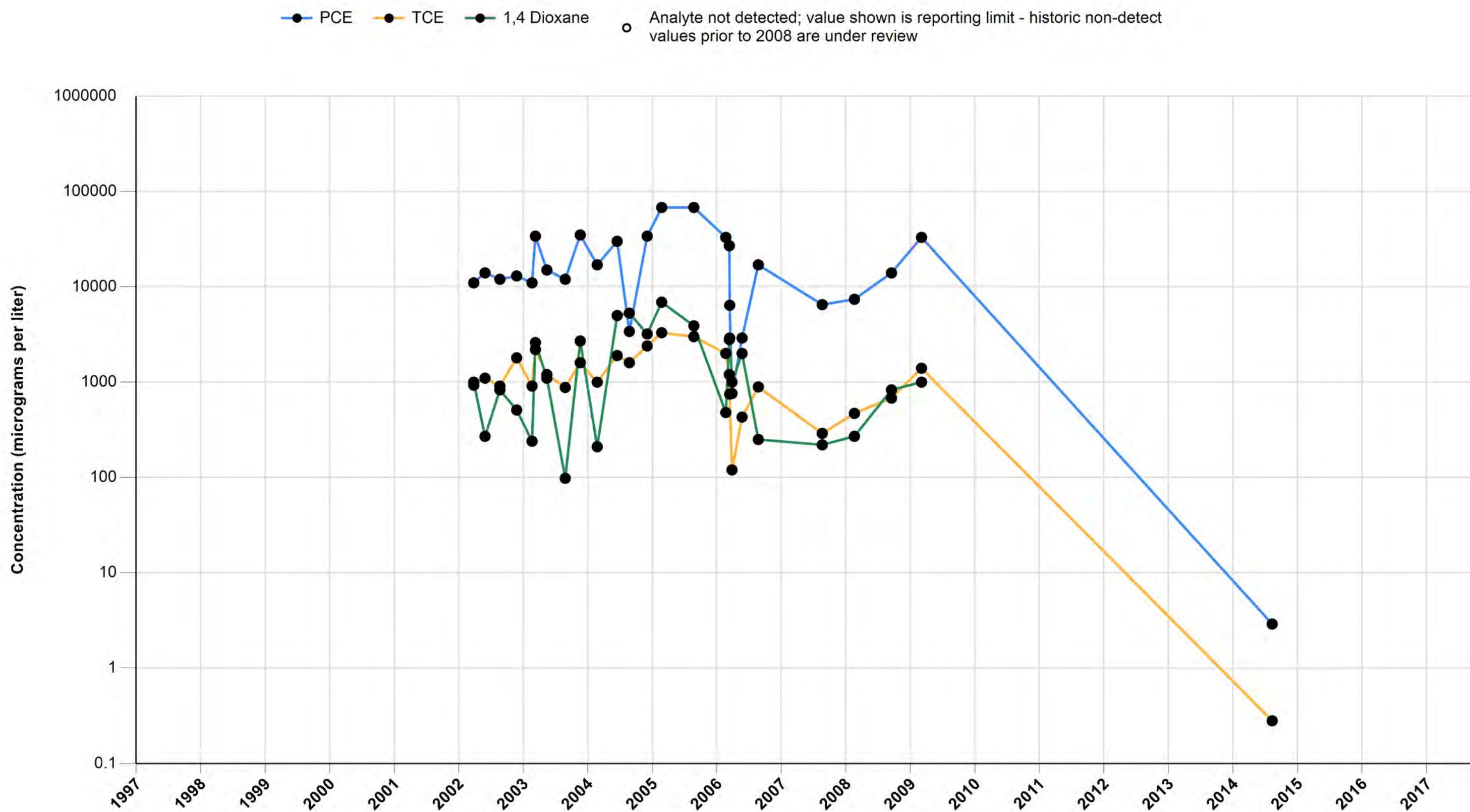
Attachment B, Figure B-31
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW7



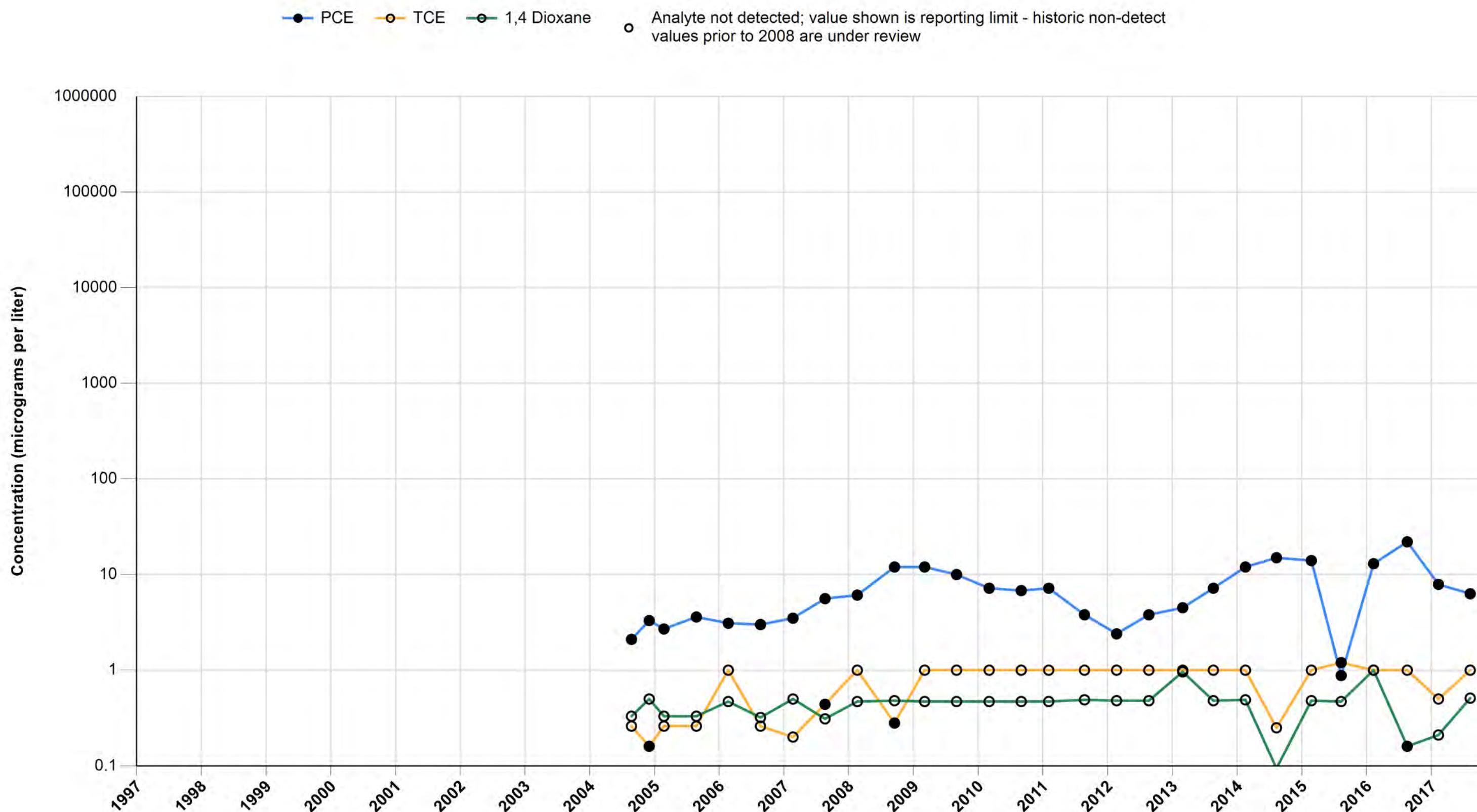
Attachment B, Figure B-32
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW8A



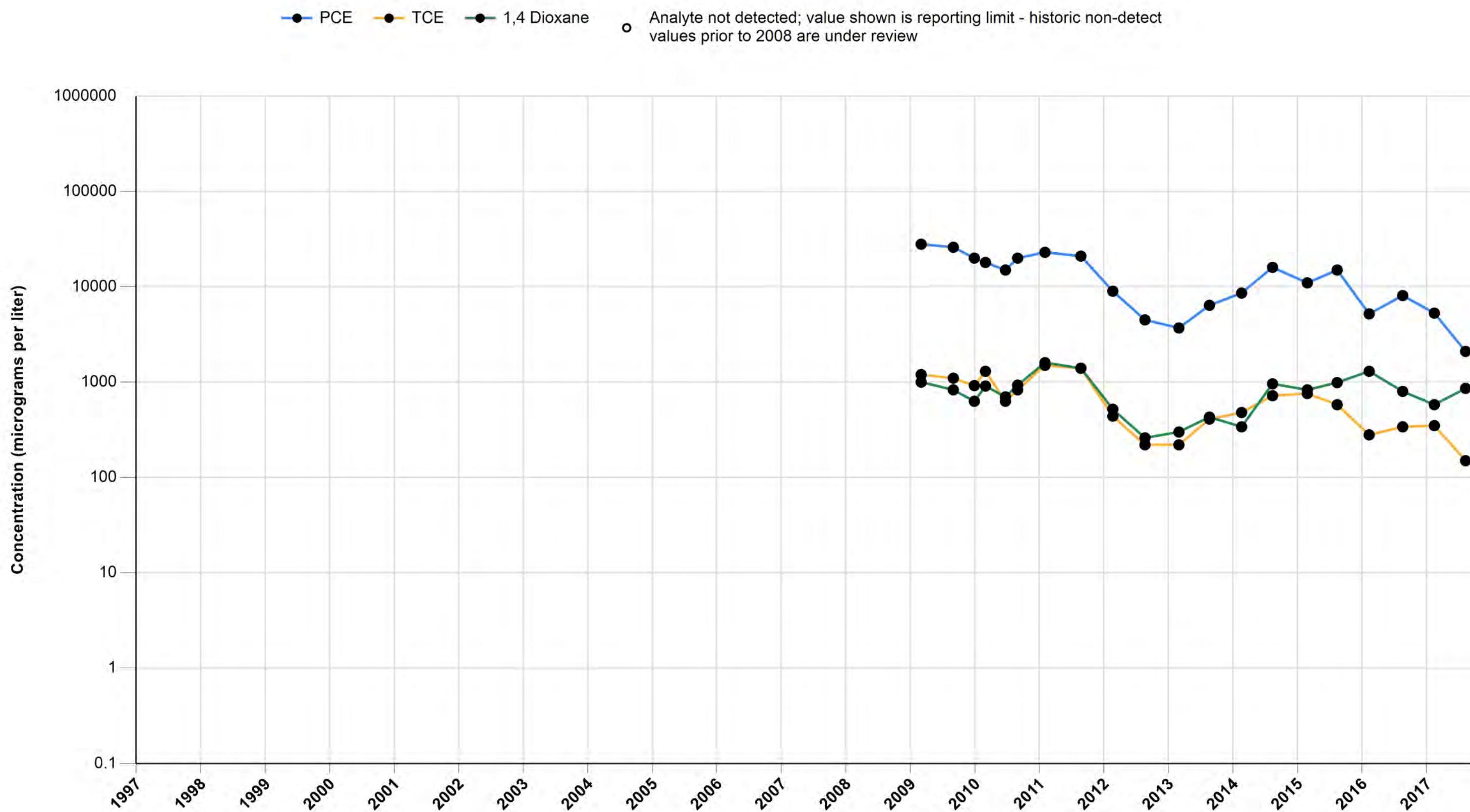
Attachment B, Figure B-33
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW8B



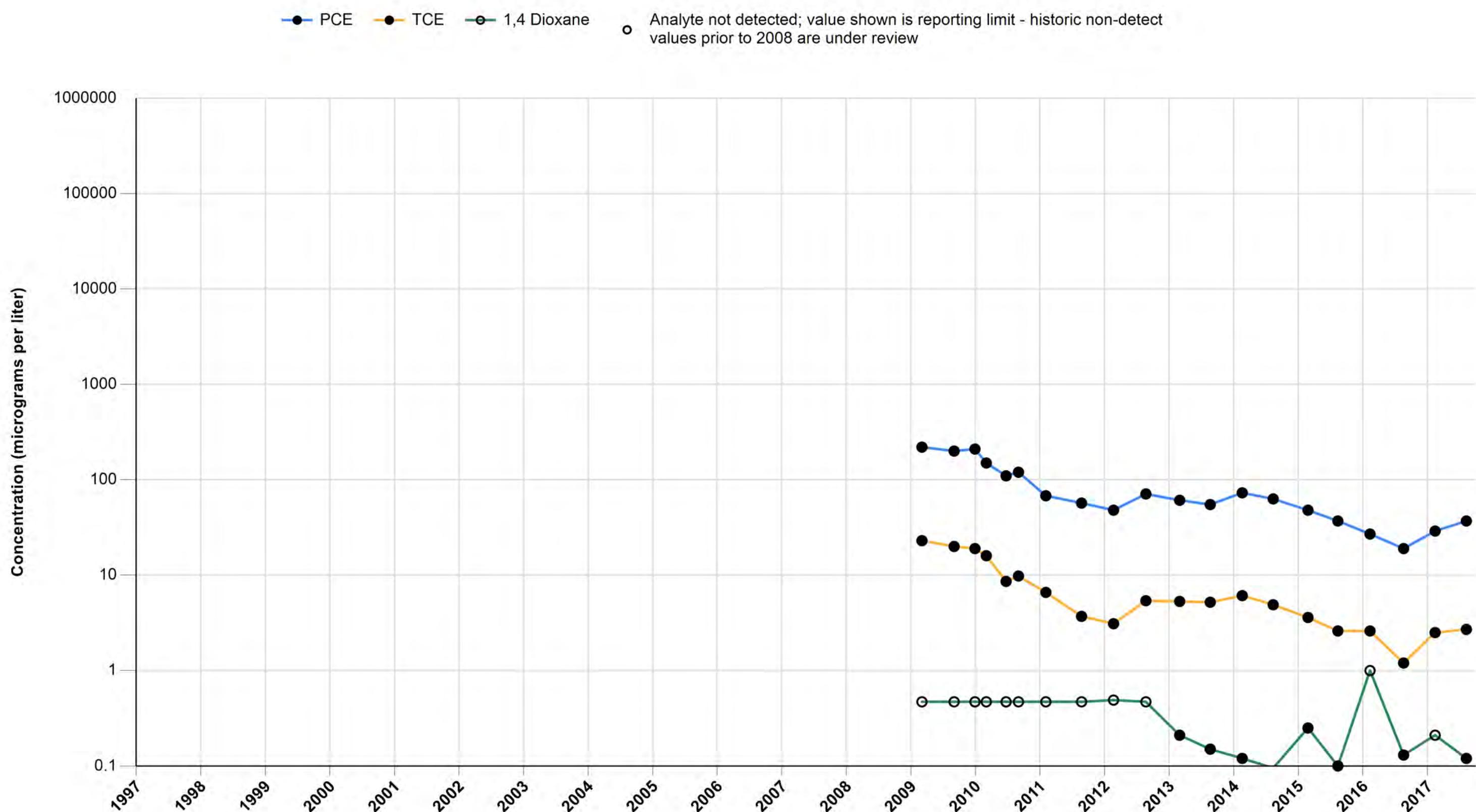
Attachment B, Figure B-34
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW9



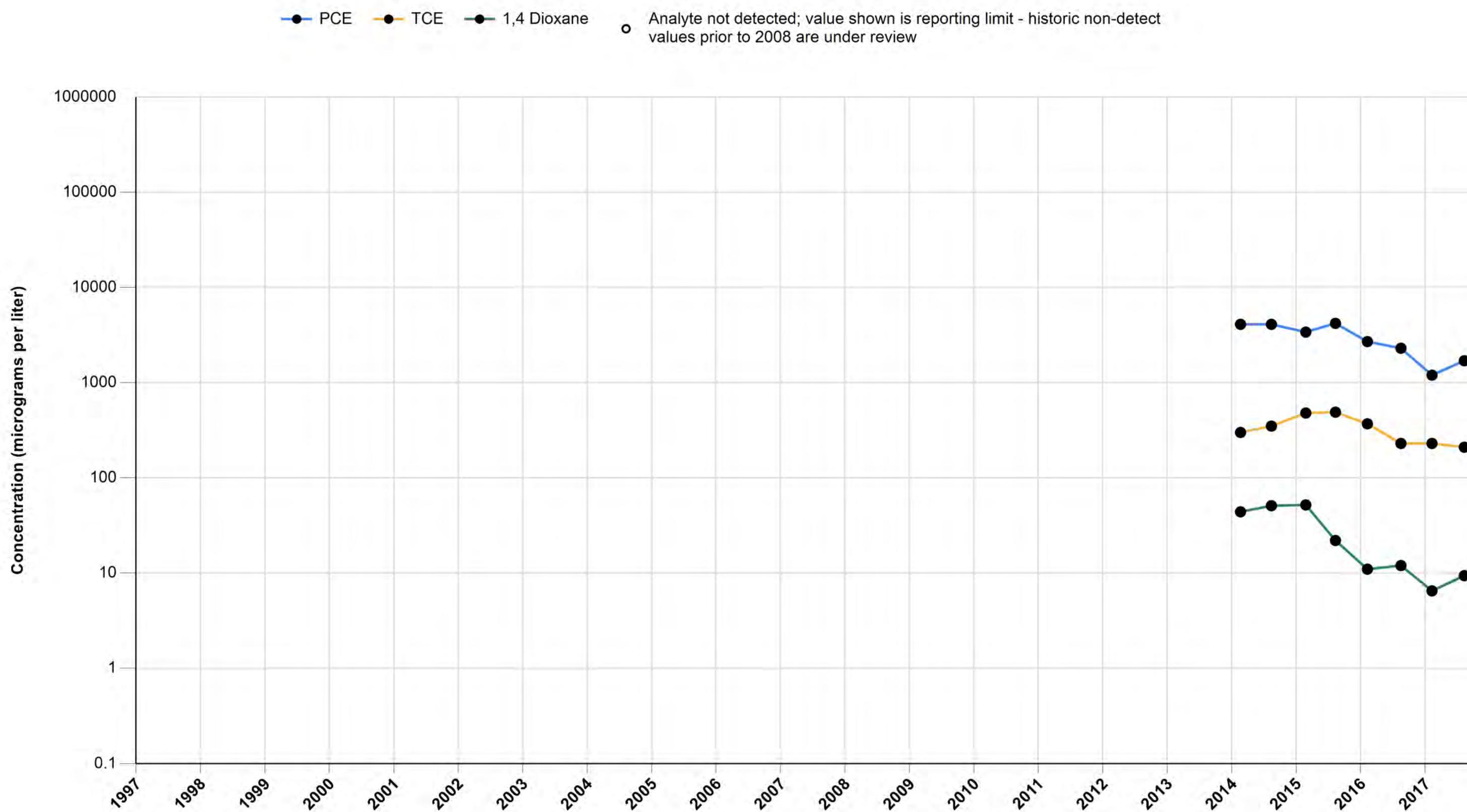
Attachment B, Figure B-35
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW10



Attachment B, Figure B-36
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW12



Attachment C

Annual Mann-Kendall Analysis

Mann-Kendall Analysis

Omega Chemical Superfund Site

Third Quarter – 2017

Introduction

This memo summarizes the results from a Mann-Kendall test that was performed on groundwater data from two groundwater observation wells at the Omega Chemical Superfund Site, Whittier, California (the Site). In accordance with site-specific USEPA requirements, a groundwater containment remedy (GCR) was installed at the Site to prevent groundwater containing high concentrations of volatile organic compounds from migrating down-gradient of the Site. Groundwater concentrations are monitored twice per year in accordance with the USEPA approved Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System (PSVP) (CDM, 2007). Observation wells OW9 and OW10 are included in the semi-annual monitoring to assess the performance of the GCFR. This Mann-Kendall test was conducted on the concentrations of Tetrachloroethene (PCE), Trichloroethene (TCE) and 1,4 - Dioxane (14DIOX) measured in OW9 and OW10 to determine if a trend in the data is present. Effective capture of the up-gradient plume will be shown by stable/no trend or decreasing trends at down-gradient wells OW9 and OW10 (CDM, 2007).

According to the Interstate Technology Regulatory Council (ITRC),

"The Mann Kendall statistic (S) is calculated through pair-wise comparisons of each data point with all preceding data points, and determining the number of increases, decreases, and ties. Pairs of non-detects below the reporting limit are "ties" that do not increase or decrease the value of S. A positive value for S implies an upward or increasing temporal trend, whereas a negative value implies a downward or decreasing trend. A value of S near zero suggests there is no significant upward or downward trend. The magnitude of S measures the "strength" of the trend. A statistically significant trend is reported if the absolute value of S is greater than the "critical value" of S (obtained from a table)" (ITRC, 2013).

Data

Two data sets are prepared for this assessment; a comprehensive historical data set¹, using data from 2009-2017 (sample size, n=20¹) and the most recent three years of data, during which time samples were collected biannually (n=7).

The data sets used in this assessment are provided in Table 1. The data were assessed with regard to seasonality; no seasonal correlation was identified. Concentrations that were not detected above the analytical method detection limit are included in the test at the reporting limit value. These data points are indicated in Table 1 with the label "(U)". No field-duplicate data were included in the test.

¹ Historical concentrations of 1,4-Dioxane at OW10 contained non-detect (ND) values at concentrations that exceeded more recent ND concentrations as a result of improved laboratory instrument precision over time. As these historical ND data did not reflect the true sample population, the values were removed from the data set prior to analysis. This only impacts ND samples collected at OW10 prior to August 22nd, 2012.

Method

The test was conducted using the software package “R” which is an open source software package used for statistical interpretation. Statistical confidence is set by the user-defined “alpha” variable. After calculating the “S” value, the probability (p-value) is calculated and is compared to the confidence interval (“alpha”) to determine whether to accept or reject the null hypothesis (the null hypothesis is that there is no trend). The p-value is a probabilistic function and in this test is acquired through calculation utilizing the before mentioned statistical software. If the p-value is less than the corresponding alpha, then the test is considered statistically significant.

Results

A summary of the results of this study are presented below. Supporting time series charts are also provided as Attachment A (pages 1-20) in which the data sets are fitted with a least squared regression line as well as separate summary that shows the Theil Sen slope estimate and corresponding confidence intervals (dotted lines) at the 95th percentile. Test statistics are provided in Table 2.

Historically Comprehensive Data Set

Compound	Location	Kendall Score (S)	Alpha Value	p-Value
PCE	OW10	-142	95% (0.05)	4.66162E-06
PCE	OW9	-106	95% (0.05)	0.000649054
TCE	OW10	-149	95% (0.05)	1.55307E-06
TCE	OW9	-91	95% (0.05)	0.003483239
14DIOX	OW10	-1	95% (0.05)	1.000000000
14DIOX	OW9	-9	95% (0.05)	0.795102119

Most Recent Three-Year Data Set

Compound	Location	Kendall Score (S)	Alpha Value	p-Value
PCE	OW10	-10	95% (0.05)	0.171563193
PCE	OW9	-15	95% (0.05)	0.035498135
TCE	OW10	-10	95% (0.05)	0.171563193
TCE	OW9	-13	95% (0.05)	0.071505420
14DIOX	OW10	3	95% (0.05)	0.763890624
14DIOX	OW9	-5	95% (0.05)	0.548005581

Discussion

A discussion of analyzed data sets is provided below:

Historically Comprehensive Data Set

Both OW9 and OW10 exhibit negative Kendall Scores (S) for all assessed compounds, signifying decreasing concentration trends. The strength of the trend is determined by the magnitude of S. In this case, concentrations at OW9 and OW10 show strong to moderate decreasing trends for all modeled compounds, except for 1,4-Dioxane at OW-9 where the trend is considered weaker. The result is statistically significant when the p-value is less than the corresponding alpha value. In this case, under the user-defined conditions shown in the table above, all trends are considered statistically significant,

with the exception of OW9 and OW10 – 1,4-Dioxane, which exhibit a weak downward trend with low confidence. For this instance, the p values are greater than our user defined alpha (the user-defined confidence in the result is shown by the alpha number; the lower the alpha, and consequent higher confidence interval, the higher the confidence in the estimation), thus we are forced to accept the null hypothesis at the 95% confidence interval (that there is no statistically significant trend). However, the S value and the application of additional methodologies for robust fitting of linear trends (Theil-Sen Estimate – Table 2), both continue to recognize a weak downward trend (for OW9), therefore, the result is being considered low confidence, but exhibiting a weak downward trend to stable/no trend.

The lower confidence in the trend for 1,4-Dioxane at OW9 likely results from wide variability in the data at that location. The lack of confidence at OW 10 likely results from a) the reduced sample population (n=10 vs n=20) as well as, b) the proximity to the detectable instrument precision.

Most Recent Three-Year Data Set

Both OW9 and OW10 exhibit negative Kendall Scores (S) for all assessed compounds (with the exception of one) signifying decreasing concentration trends. The trend for OW10 demonstrates a positive S score for 1,4-Dioxane, signifying a small increase in concentration over time. The strength of the trend is determined by the magnitude of S. In this case, concentrations at OW9 and OW10 show moderate decreasing trends for all modeled compounds, except for 1,4-Dioxane at OW10 where the trend is considered weak to stable/no trend.

The result is statistically significant when the p-value is less than the corresponding alpha value. In this case, under the user-defined conditions shown in the table above, all trends are not considered statistically significant. In the following cases, the p value is greater than our user defined alpha, thus we are forced to accept the null hypothesis at the 95% confidence interval (that there is no statistically significant trend): OW10 – PCE, OW10 – TCE, OW9 – TCE, OW9 – 14DIOX and OW10 – 14DIOX.

The lack of statistical significance is likely derived from the small sample population (n=7) for both OW9 and OW10.

Observations

The following are observed:

- Historical concentrations of PCE and TCE at OW-10 display strong downward trends, with a high degree of confidence when assessed. Utilizing the most recent three-year data set, the trend is observed to be moderately downward with low confidence.
- Concentrations of 1,4-Dioxane at OW-10 under the Historically Comprehensive Data Set are stable/no trend with a low degree of confidence. When utilizing the most recent three-year data set, concentrations show weak upward trend with low confidence.
- Historical concentrations of PCE and TCE are moderately to significantly trending downward at OW-9, with a high degree of confidence. Utilizing the most recent three-year data set, the trend is observed to be moderately downward with low confidence.

- Historical concentrations of 1,4-Dioxane at OW-9 display a weak downward trend with a low degree of confidence. Variability in the 1,4-Dioxane data at this location are likely resulting in the weak downward trend. Utilizing the most recent three-year data set, the trend is observed to be moderately downward with low confidence.

Conclusions

The statistical significance of the Mann Kendall method increases with sample size. Results of the analysis indicate decreasing trends in concentration for both PCE and TCE using the full historical data record at the 95% confidence level. In OW9, the 1,4-Dioxane data is inconclusive of a trend at the 95% confidence level (stable/no trend) but suggests a decreasing trend. For the 1,4-Dioxane trend analysis in OW10 the trend analysis is also inconclusive at the 95% confidence level (stable/no trend) but is suggestive of a decreasing trend. Results of the trend analysis for the most recent three years of data indicate a weak downward trend to stable/no trend. In OW10, the 1,4-Dioxane data is exhibiting a weak upward trend to stable/no trend largely attributable to the historically low concentrations and proximity of sample concentrations to that of lab instrument detection limits. All analysis for the most recent three-year data set fail to achieve a 95% confidence level. The conclusion for the most recent three years of data is that concentrations based on the Mann Kendall analysis are stable/no trend with the exception of OW10 – 1,4-Dioxane that shows slight upward trend to stable/no trend with low confidence.

Although OW10 over the three-year rolling period displays a slight upward trend, the comparative historical assessment shows stable/no trend. It is therefore concluded that the concentration at OW10 for 1,4-Dioxane is at or near the practical limitations of the laboratory equipment testing it. As a consequence, monitoring of trends at these low concentrations largely reflects the natural variation in sample concentrations and not necessarily any consistent trend in the data set. It is therefore concluded that the trend for OW10 - 1,4-Dioxane should be considered stable/no trend.

In accordance with the objective stated in the PSVP, decreasing to stable / no trending concentrations are observed at down-gradient wells OW9 and OW10 (CDM, 2007).

References

- CDM. (2007). *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System*.
- ITRC. (2013). *Groundwater Statistics and Monitoring Compliance, Statistical Tools for the Project Life Cycle*. Washington D.C.: <http://www.itrcweb.org/gsmc-1/>.
- US EPA (2016) *CADDIS Volume 4 – Data Analysis*: https://www3.epa.gov/caddis/da_software_rscript1.html

Table 1
Omega Chemical Superfund Site
Mann-Kendall Data Set - Third Quarter 2017

Historically Comprehensive Data Set			Most Recent Three Year Data Set		
Sample Location	Date	TCE - ug/l	Sample Location	Date	TCE - ug/l
OW10	3/4/2009	23	OW9	3/3/2009	1200
OW10	9/2/2009	20	OW9	9/1/2009	1100
OW10	12/29/2009	19	OW9	12/29/2009	920
OW10	3/3/2010	16	OW9	3/2/2010	1300
OW10	6/23/2010	8.6	OW9	6/23/2010	630
OW10	9/1/2010	9.8	OW9	8/31/2010	830
OW10	2/3/2011	6.6	OW9	2/2/2011	1500
OW10	8/24/2011	3.7	OW9	8/24/2011	1400
OW10	2/21/2012	3.1	OW9	2/21/2012	440
OW10	8/22/2012	5.4	OW9	8/21/2012	220
OW10	3/1/2013	5.3	OW9	3/1/2013	220
OW10	8/21/2013	5.2	OW9	8/21/2013	410
OW10	2/18/2014	6.1	OW9	2/19/2014	480
OW10	8/12/2014	4.9	OW9	8/13/2014	720
OW10	2/25/2015	3.6	OW9	2/26/2015	760
OW10	8/13/2015	2.6	OW9	8/14/2015	580
OW10	2/11/2016	2.6	OW9	2/11/2016	280
OW10	8/19/2016	1.2	OW9	8/19/2016	340
OW10	2/13/2017	2.5	OW9	2/14/2017	350
OW10	8/9/2017	2.7	OW9	8/10/2017	150
Sample Location	Date	PCE - ug/l	Sample Location	Date	PCE - ug/l
OW10	3/4/2009	220	OW9	3/3/2009	28000
OW10	9/2/2009	200	OW9	9/1/2009	26000
OW10	12/29/2009	210	OW9	12/29/2009	20000
OW10	3/3/2010	150	OW9	3/2/2010	18000
OW10	6/23/2010	110	OW9	6/23/2010	15000
OW10	9/1/2010	120	OW9	8/31/2010	20000
OW10	2/3/2011	68	OW9	2/2/2011	23000
OW10	8/24/2011	57	OW9	8/24/2011	21000
OW10	2/21/2012	48	OW9	2/21/2012	9000
OW10	8/22/2012	71	OW9	8/21/2012	4500
OW10	3/1/2013	61	OW9	3/1/2013	3700
OW10	8/21/2013	55	OW9	8/21/2013	6400
OW10	2/18/2014	73	OW9	2/19/2014	8600
OW10	8/12/2014	63	OW9	8/13/2014	16000
OW10	2/25/2015	48	OW9	2/26/2015	11000
OW10	8/13/2015	37	OW9	8/14/2015	15000
OW10	2/11/2016	27	OW9	2/11/2016	5200
OW10	8/19/2016	19	OW9	8/19/2016	8100
OW10	2/13/2017	29	OW9	2/14/2017	5300
OW10	8/9/2017	37	OW9	8/10/2017	2100
Sample Location	Date	1,4-Dioxane - ug/l	Sample Location	Date	1,4-Dioxane - ug/l
OW10	3/1/2013	0.21	OW9	3/3/2009	1000
OW10	8/21/2013	0.15	OW9	9/1/2009	830
OW10	2/18/2014	0.12	OW9	12/29/2009	630
OW10	8/12/2014	0.095 U	OW9	3/2/2010	910
OW10	2/25/2015	0.25	OW9	6/23/2010	700
OW10	8/13/2015	0.1	OW9	8/31/2010	930
OW10	2/11/2016	1 U	OW9	2/2/2011	1600
OW10	8/19/2016	0.13	OW9	8/24/2011	1400
OW10	2/13/2017	0.21 U	OW9	2/21/2012	520
OW10	8/9/2017	0.12	OW9	8/21/2012	260
			OW9	3/1/2013	300
			OW9	8/21/2013	430
			OW9	2/19/2014	340
			OW9	8/13/2014	960
			OW9	2/26/2015	830
			OW9	8/14/2015	990
			OW9	2/11/2016	1300
			OW9	8/19/2016	800
			OW9	2/14/2017	580
			OW9	8/10/2017	860

Table 2 - Mann-Kendall Summary - Omega Chemical Superfund Site -Third Quarter 2017

**Historically Comprehensive
Summary Statistics**

Parameter	Location	n	Mean	Standard Deviation	Median	Trimmed Mean	Median Absolute Deviation	Minimum	Maximum	Range	Skew	Kurtosis	Standard Error
PCE	OW10	20	85.150	62.713	62.0	76.688	37.065	19	220	201	1.048	-0.335	14.023
PCE	OW9	20	13295.0	7950.073	13000.0	12881.250	10378.200	2100	28000	25900	0.265	-1.345	1777.690
TCE	OW10	20	7.6	6.554	5.3	6.575	3.855	1	23	22	1.176	-0.097	1.466
TCE	OW9	20	691.5	421.717	605.0	660.000	429.954	150	1500	1350	0.502	-1.152	94.299
14DIOX	OW10	10	0.2	0.273	0.1	0.161	0.063	0.1	1	0.9	2.124	3.109	0.086
14DIOX	OW9	20	808.5	358.392	830.0	788.125	274.281	260	1600	1340	0.374	-0.535	80.139

Mann Kendall Analysis

Parameter	Location	Kendall Score (S)	Denominator	Tau	Var(score)	2-sided p value	Theil Sen Estimate
PCE	OW10	-142	188.9974	-0.751333237	948	4.66162E-06	-17.41
PCE	OW9	-106	188.9974	-0.560854375	948	0.000649054	-2363.84
TCE	OW10	-149	189.4993	-0.78628242	949	1.55307E-06	-1.46
TCE	OW9	-91	189.4993	-0.480212748	949	0.003483239	-104.57
14DIOX	OW10	-1	43.9886	-0.022733146	123	1	0
14DIOX	OW9	-9	189.4993	-0.04749357	949	0.795102119	-7.17

Most Recent Three Years

Summary Statistics

Parameter	Location	n	Mean	Standard Deviation	Median	Trimmed Mean	Median Absolute Deviation	Minimum	Maximum	Range	Skew	Kurtosis	Standard Error
PCE	OW10	7	37.143	14.634	37.0	37.143	14.826	19	63	44	0.502	-1.180	5.531
PCE	OW9	7	8957.1	5252.573	8100.0	8957.143	4299.540	2100	16000	13900	0.151	-1.799	1985.286
TCE	OW10	7	2.9	1.137	2.6	2.871	0.148	1	5	4	0.386	-0.857	0.430
TCE	OW9	7	454.3	233.371	350.0	454.286	296.520	150	760	610	0.149	-1.856	88.206
14DIOX	OW10	7	0.3	0.326	0.1	0.272	0.052	0	1	1	1.516	0.576	0.123
14DIOX	OW9	7	902.9	220.054	860.0	902.857	148.260	580	1300	720	0.379	-0.810	83.173

Mann Kendall Analysis

Parameter	Location	Kendall Score (S)	Denominator	Tau	Var(score)	2-sided p value	Theil Sen Estimate
PCE	OW10	-10	20.4939	-0.487950027	43.333332	0.171563193	-13.56
PCE	OW9	-15	21.0000	-0.714285731	44.333332	0.035498135	-4629.11
TCE	OW10	-10	20.4939	-0.487950027	43.333332	0.171563193	-0.73
TCE	OW9	-13	21.0000	-0.619047642	44.333332	0.07150542	-190
14DIOX	OW10	3	21.0000	0.142857149	44.333332	0.763890624	0.01
14DIOX	OW9	-5	21.0000	-0.238095239	44.333332	0.548005581	-64.91

n = number of discrete samples in dataset.

Mean = A central value of a discrete set of numbers.

Standard Deviation = A measure of how spread out numbers are and is equal to square root of the variance.

Median = Is the value separating the higher half of a dataset.

Trimmed Mean = A method of averaging that removes a small designated percentage of the largest and smallest values before calculating the mean.

Median Absolute Deviation = A robust measure of the variability of a univariate sample of quantitative data.

Minimum = The minimum value in the dataset.

Maximum = The maximum value in the dataset.

Range = The difference between the lowest and highest values.

Skew = A measure of the asymmetry of the probability distribution of a real-valued random variable about its mean.

Kurtosis = A statistical measure that's used to describe the distribution, or skewness, of observed data around the mean.

Standard Error = The standard deviation of the sampling distribution of the mean.

Kendall Score - (S) = Kendall Score.

Denominator = The maximum possible value of S.

Tau = Kendall Tau Statistic (Kendall Score / Denominator).

Var(score) = Variance in Kendall Score (S).

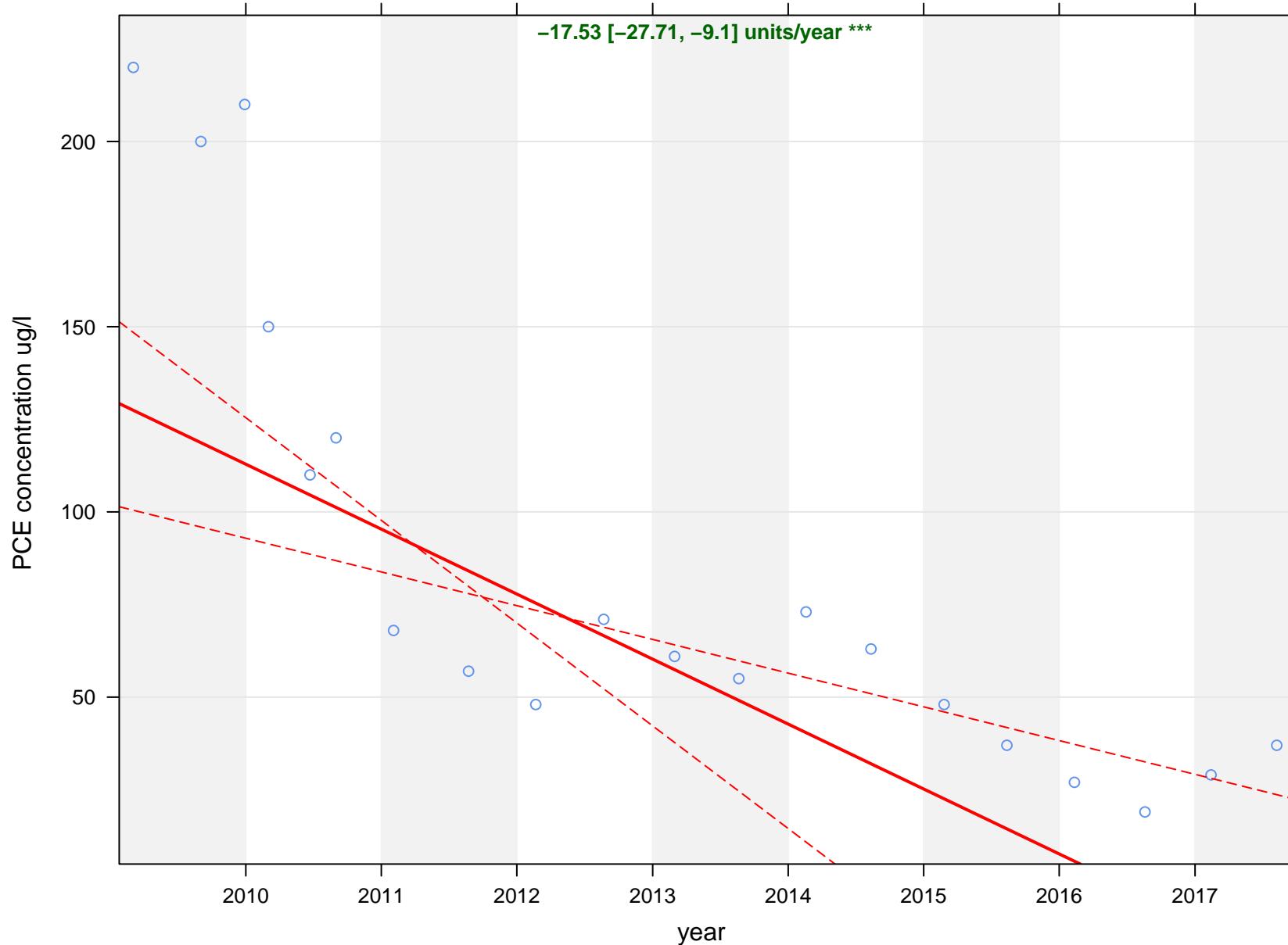
2-sided p-value = The probability of finding the observed, or more extreme, results when the null hypothesis (H 0) of a study question is true.

Theil Sen Estimate = A method for robustly fitting a line to a set of points (simple linear regression) that chooses the median of the slopes of all lines through pairs of two-dimensional sample points.

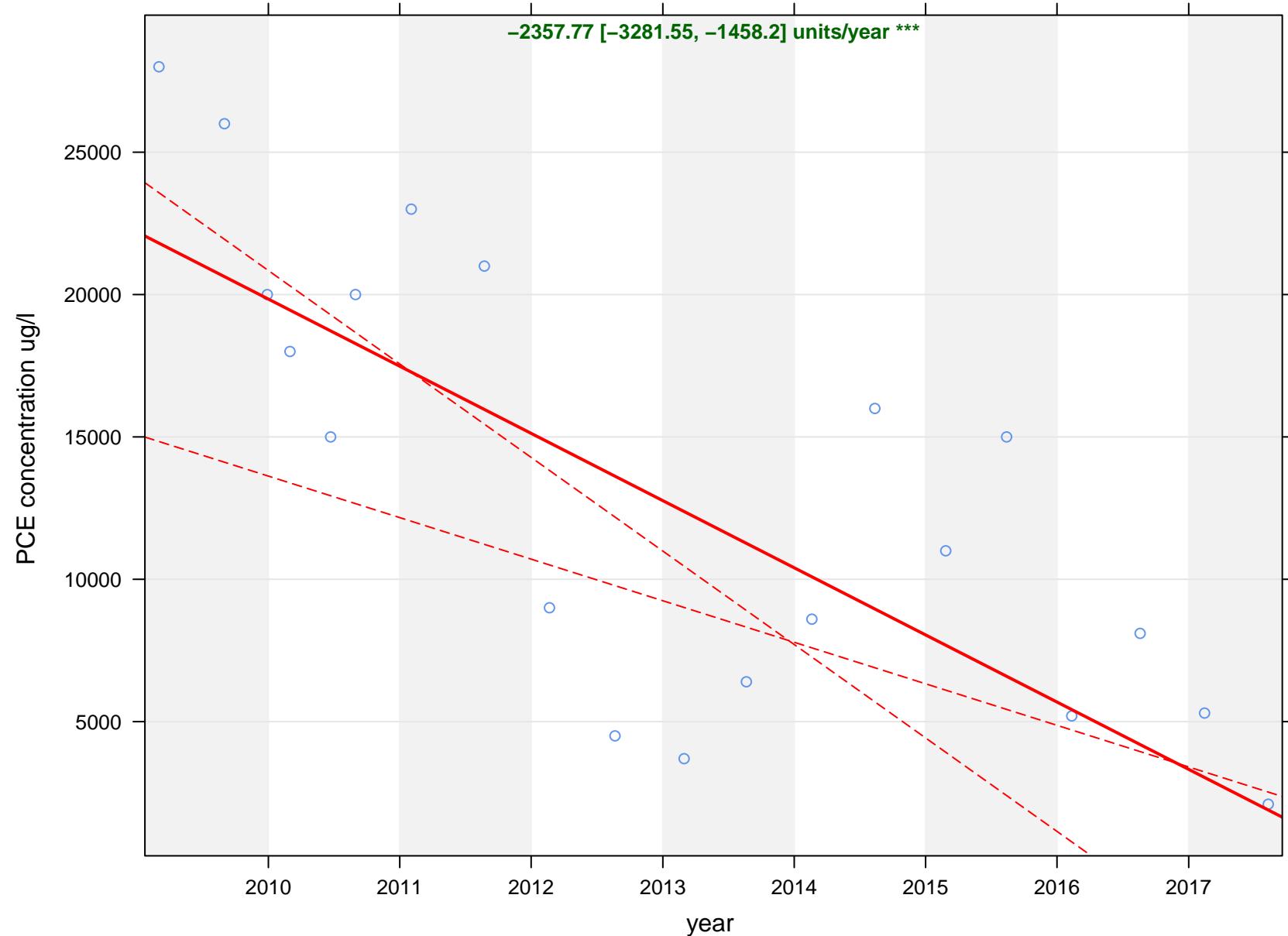
ATTACHMENT A

Historically Comprehensive Analysis

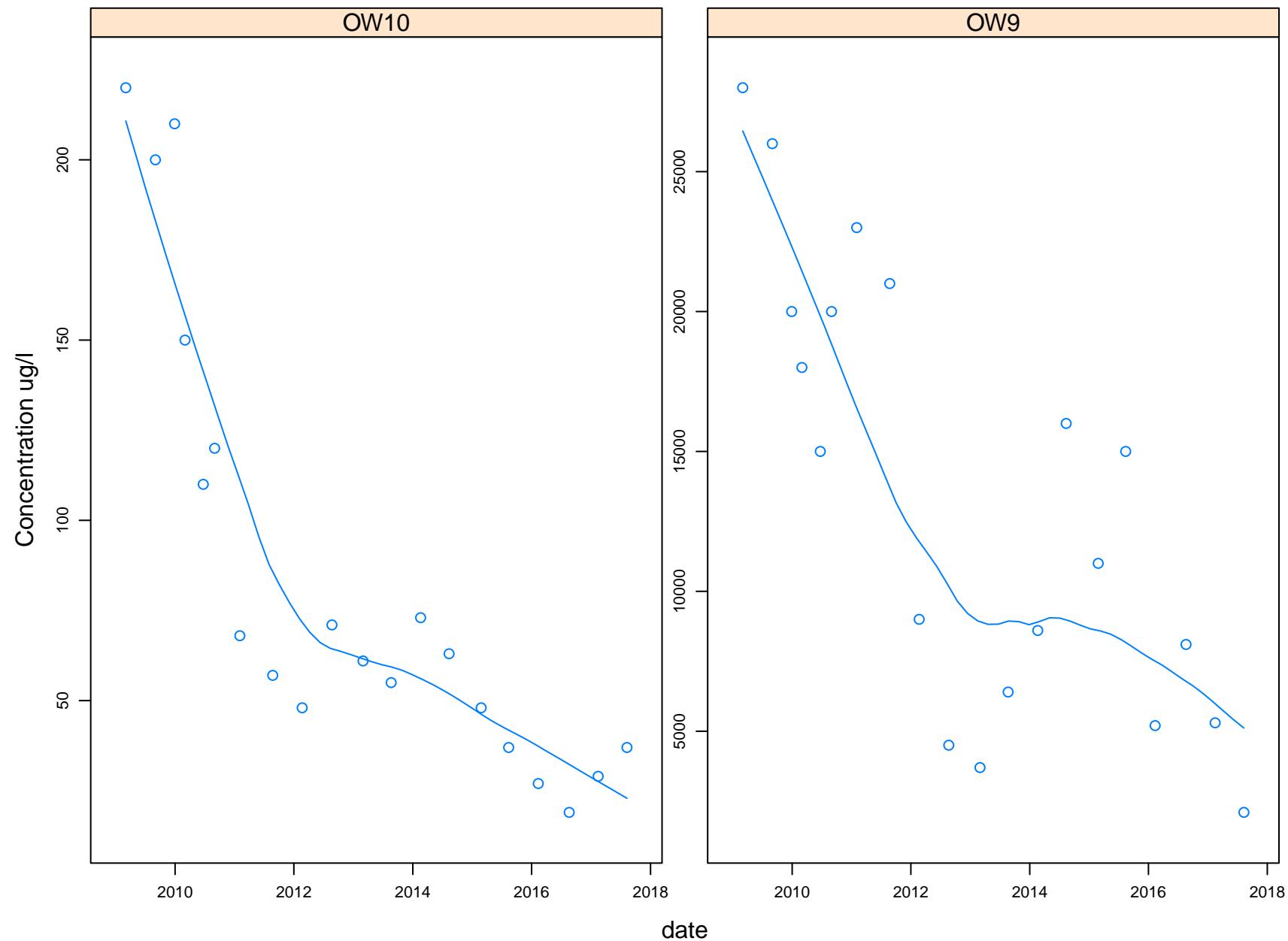
OW10



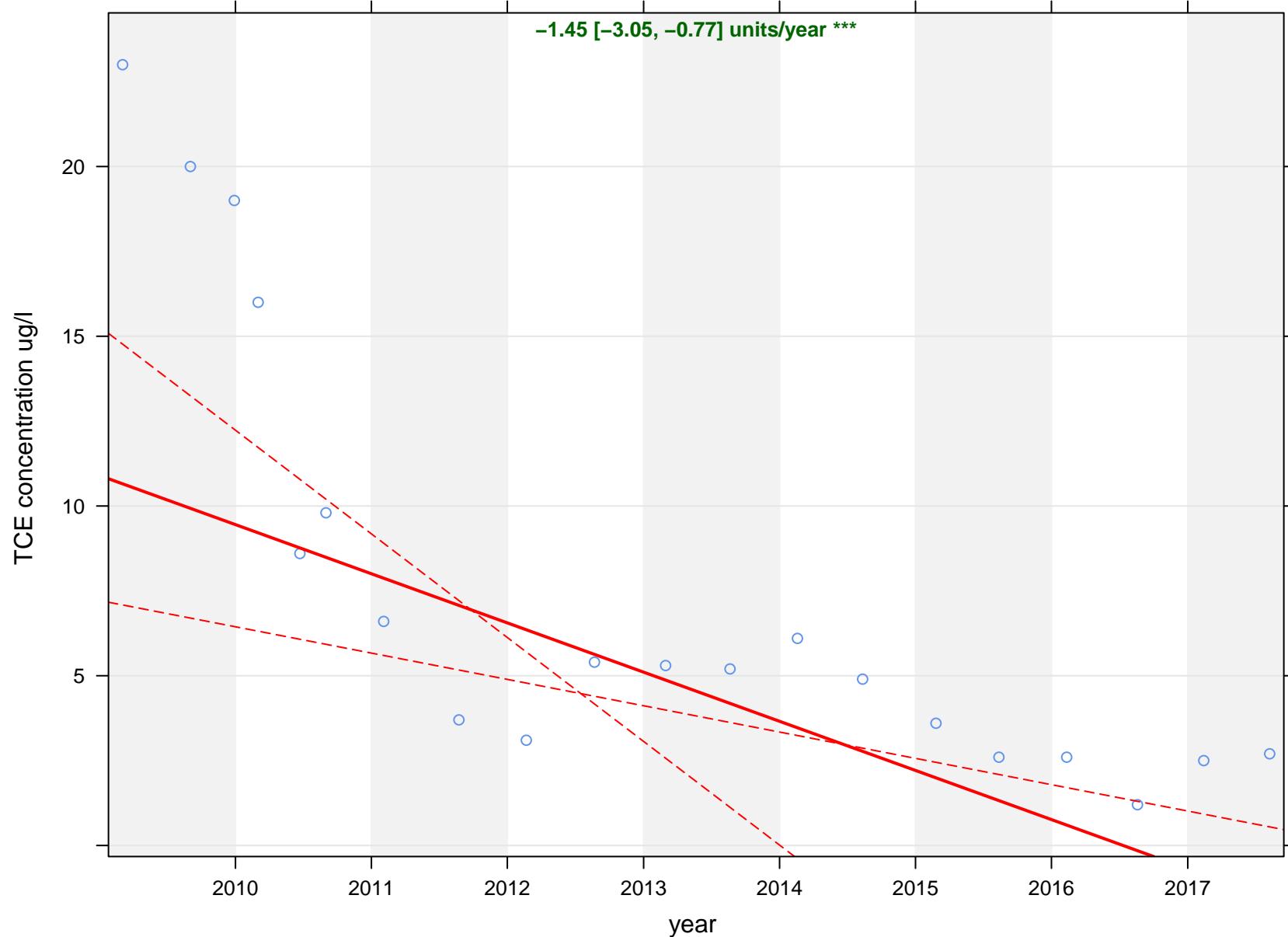
OW9



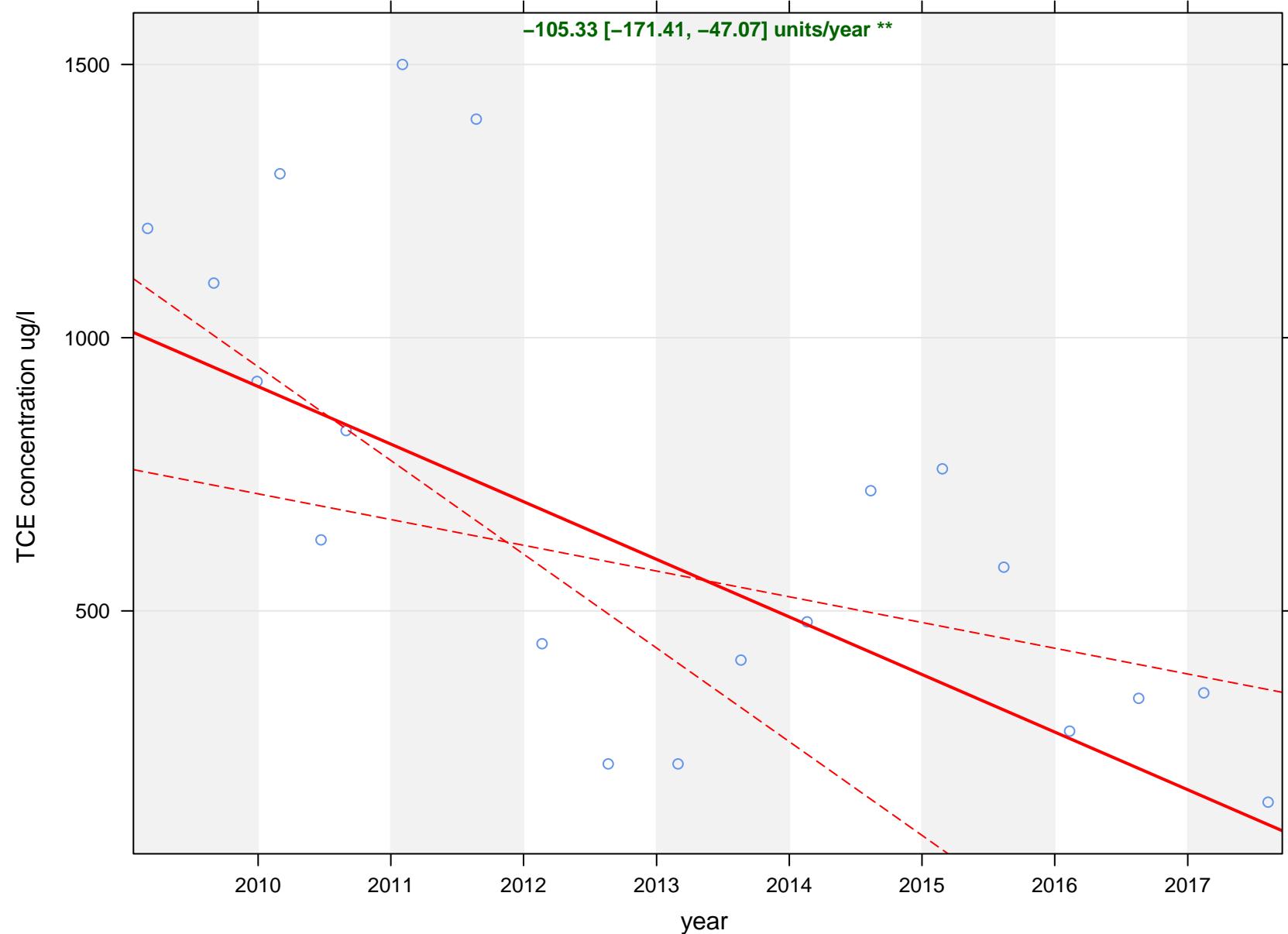
PCE concentration ug/l



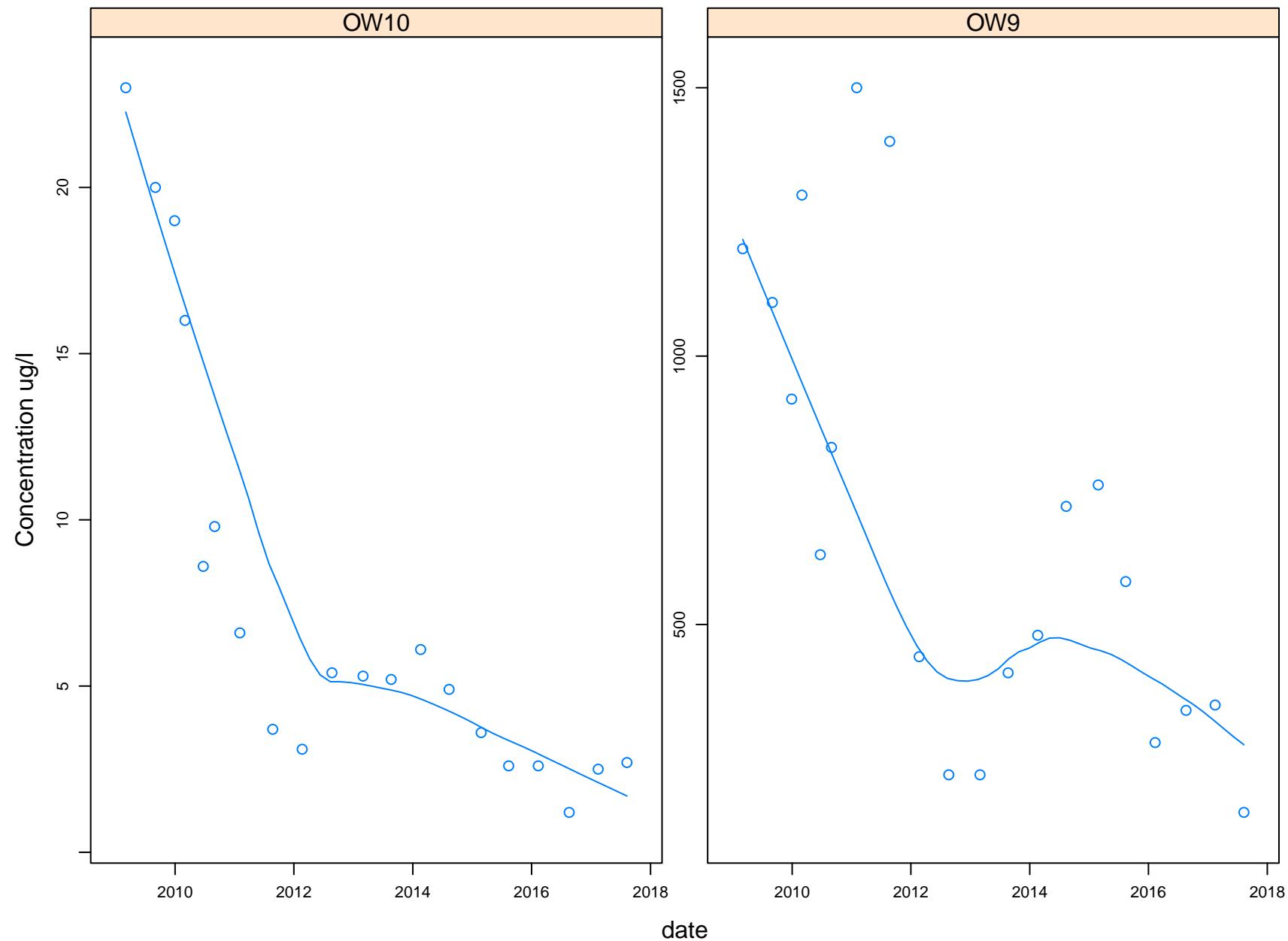
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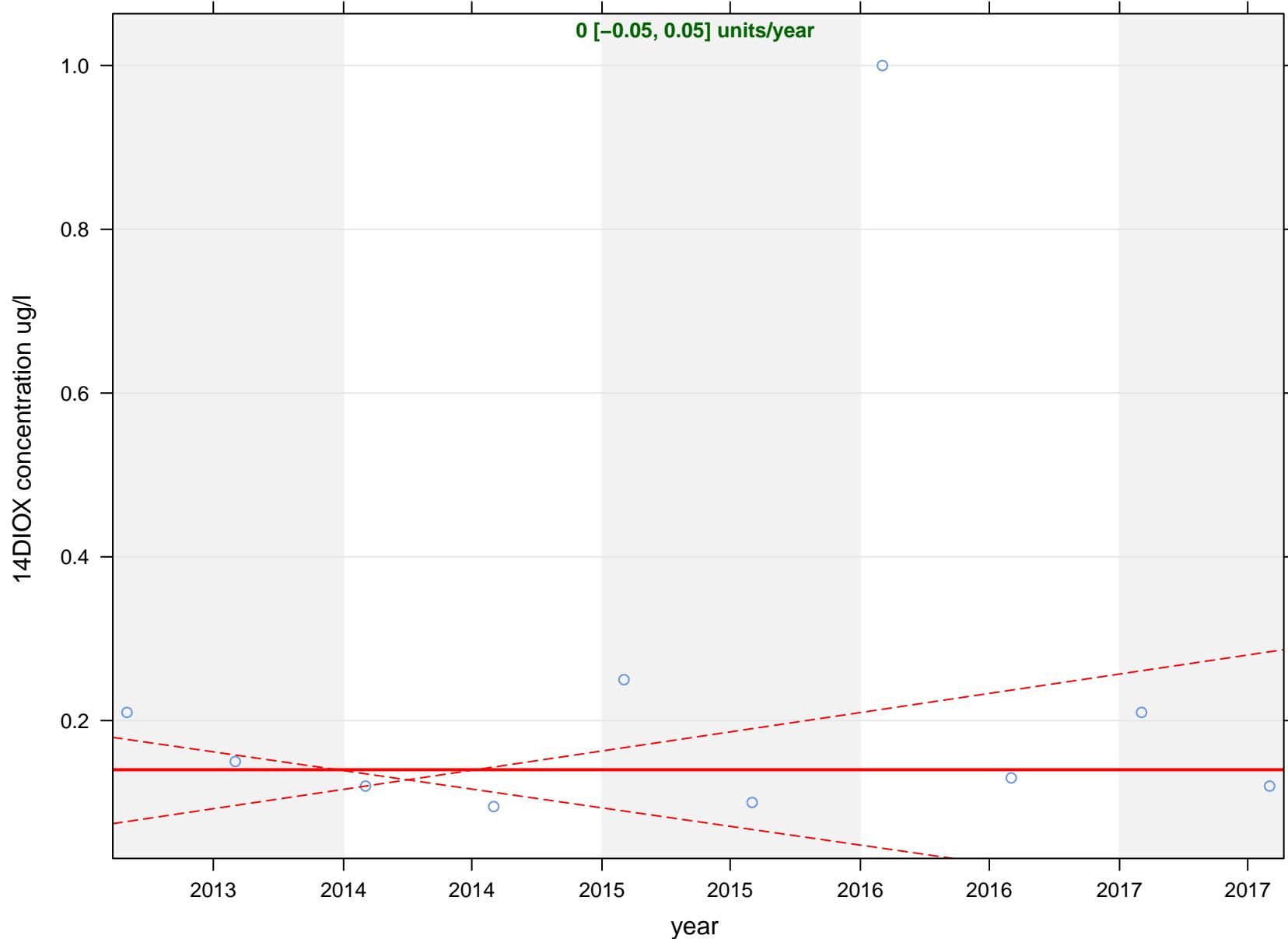
OW9



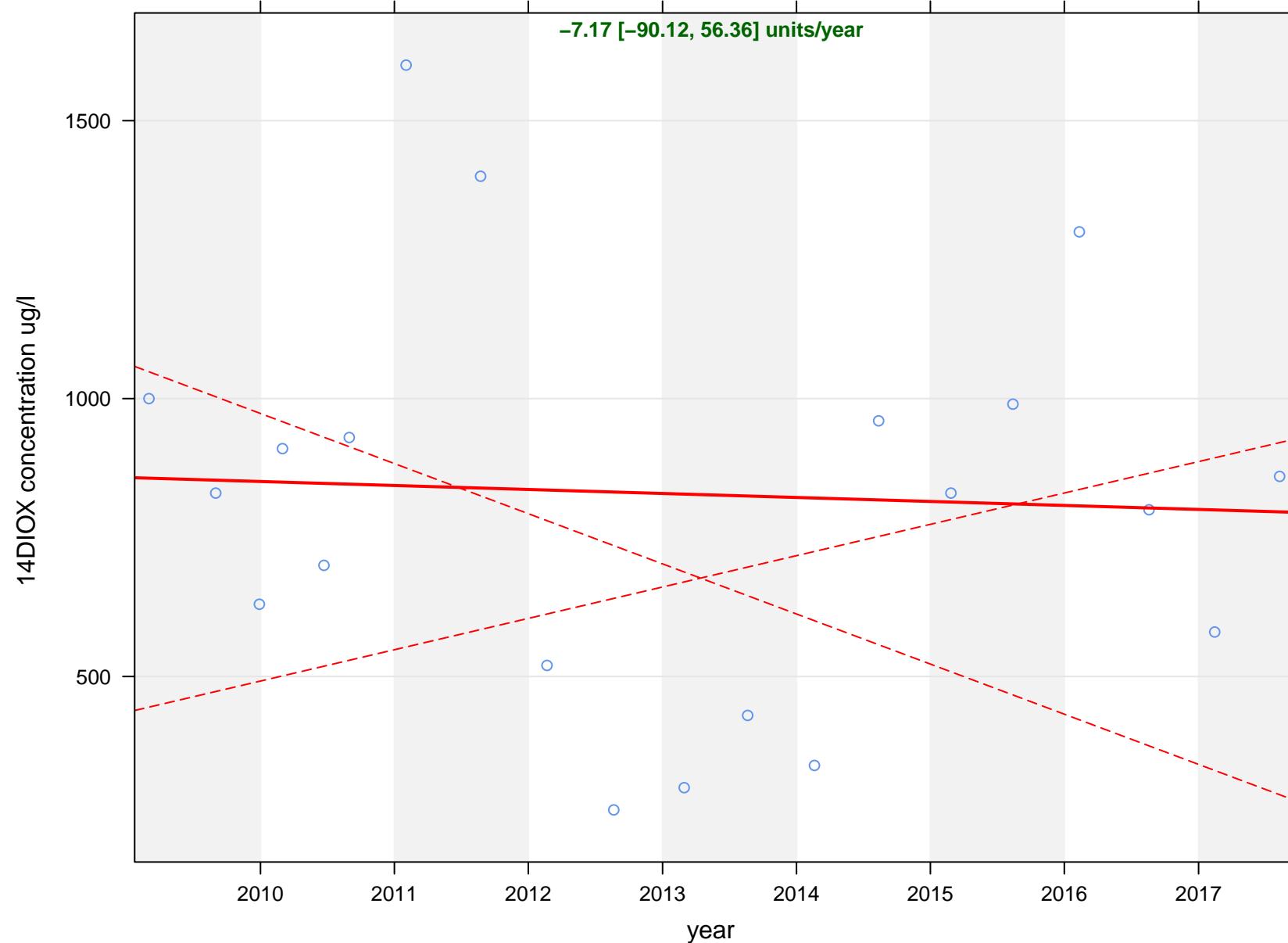
TCE concentration ug/l



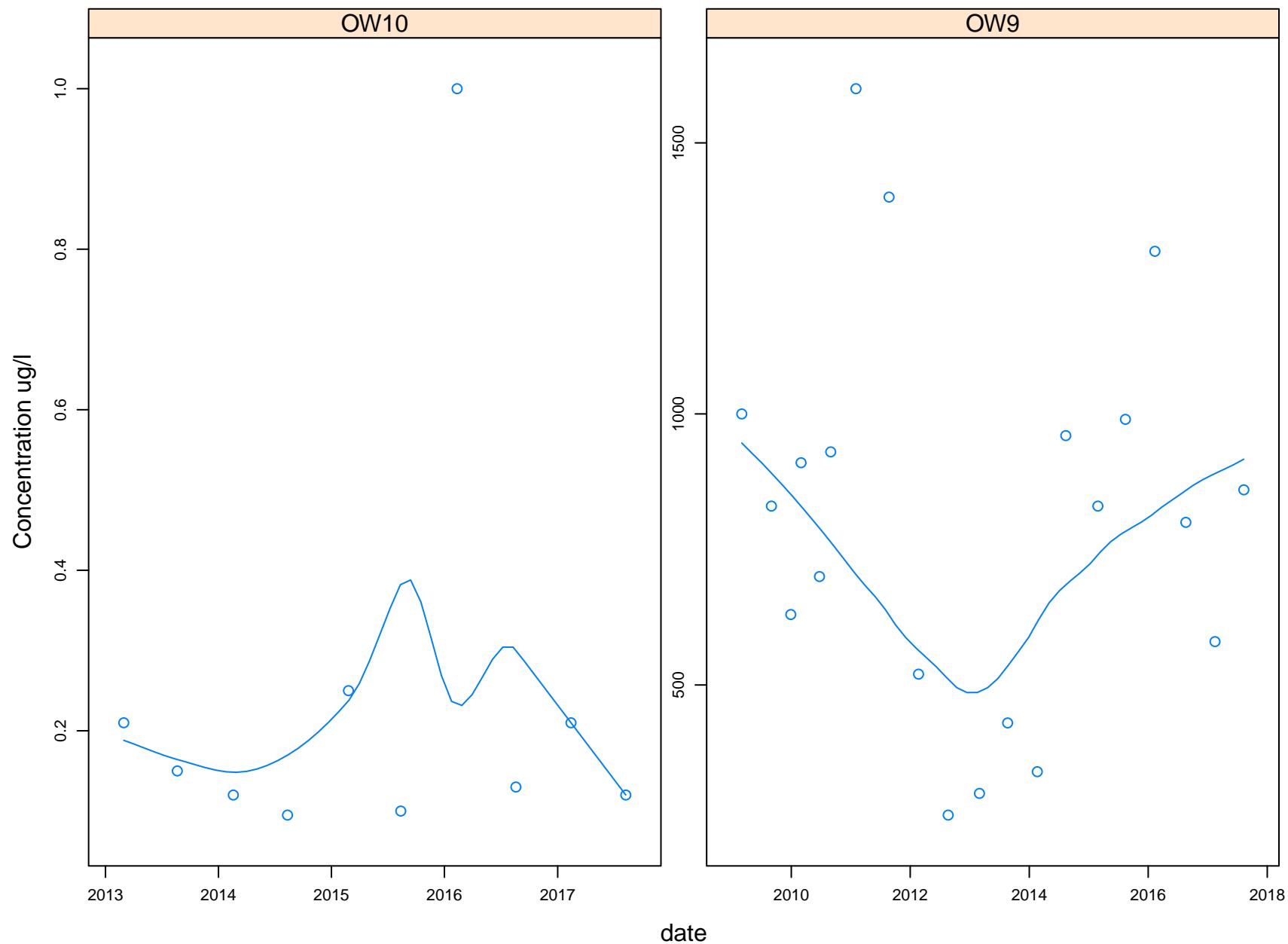
OW10



OW9

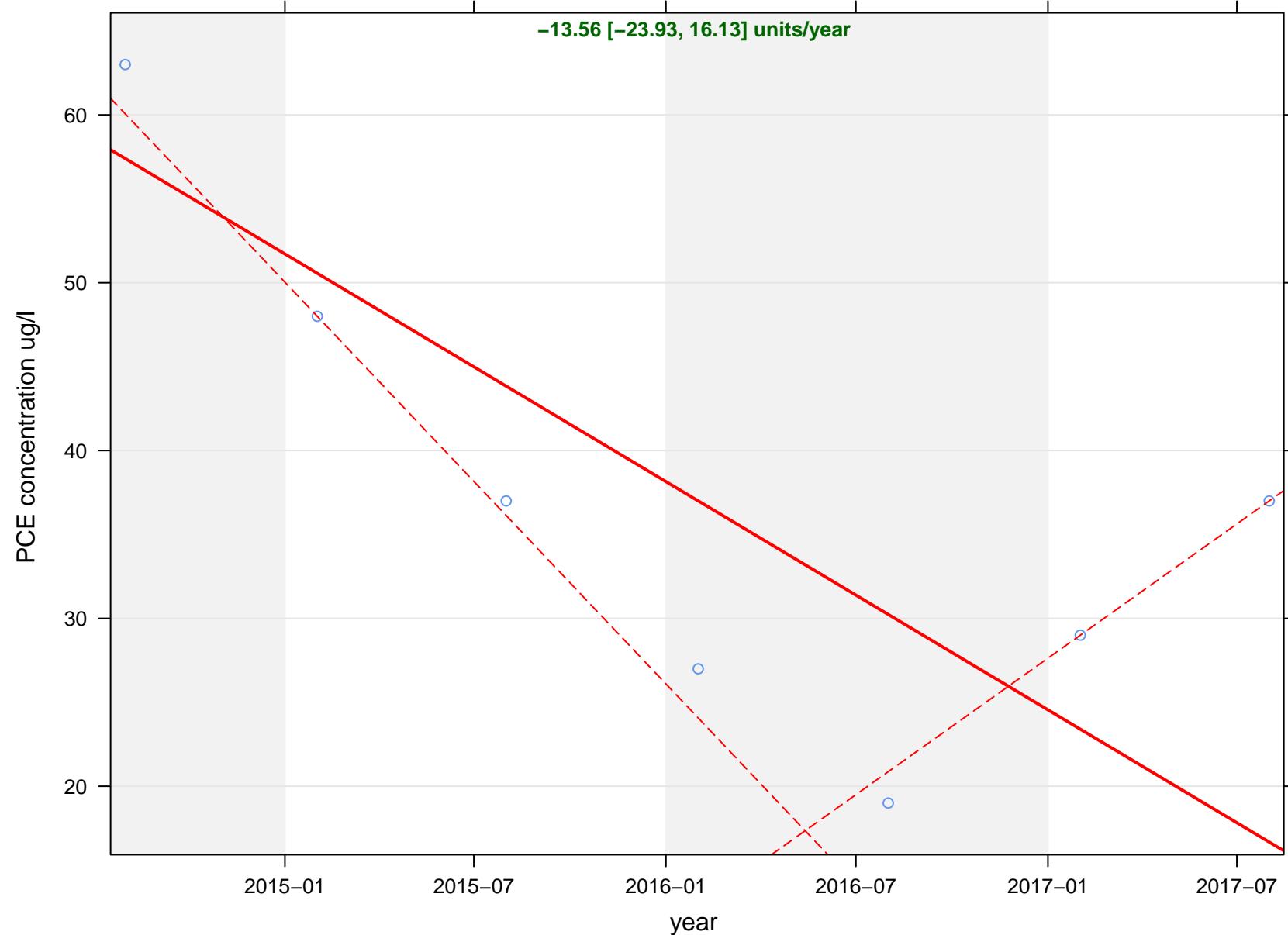


14DIOX concentration ug/l

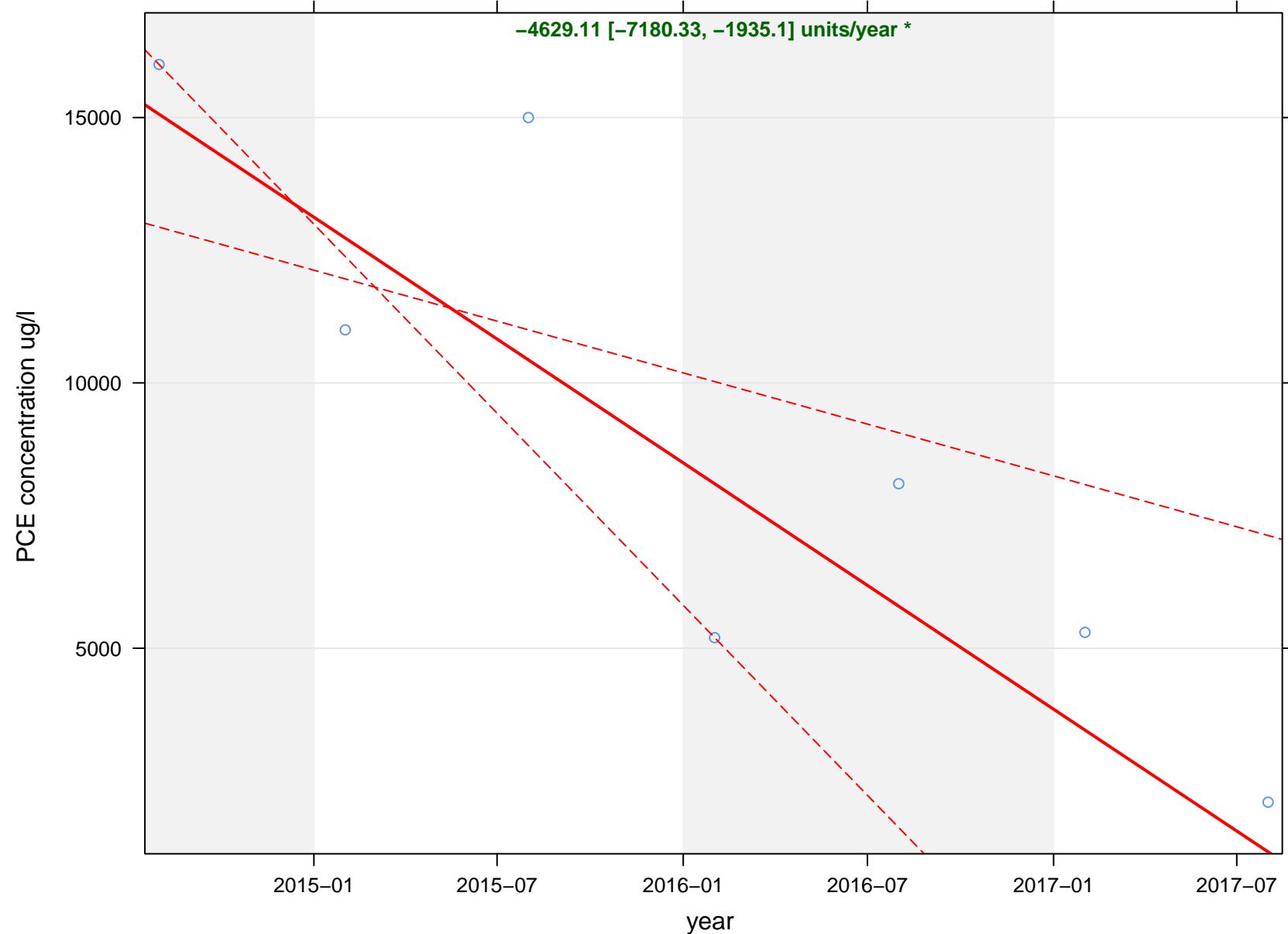


Most Recent Three-Year Analysis

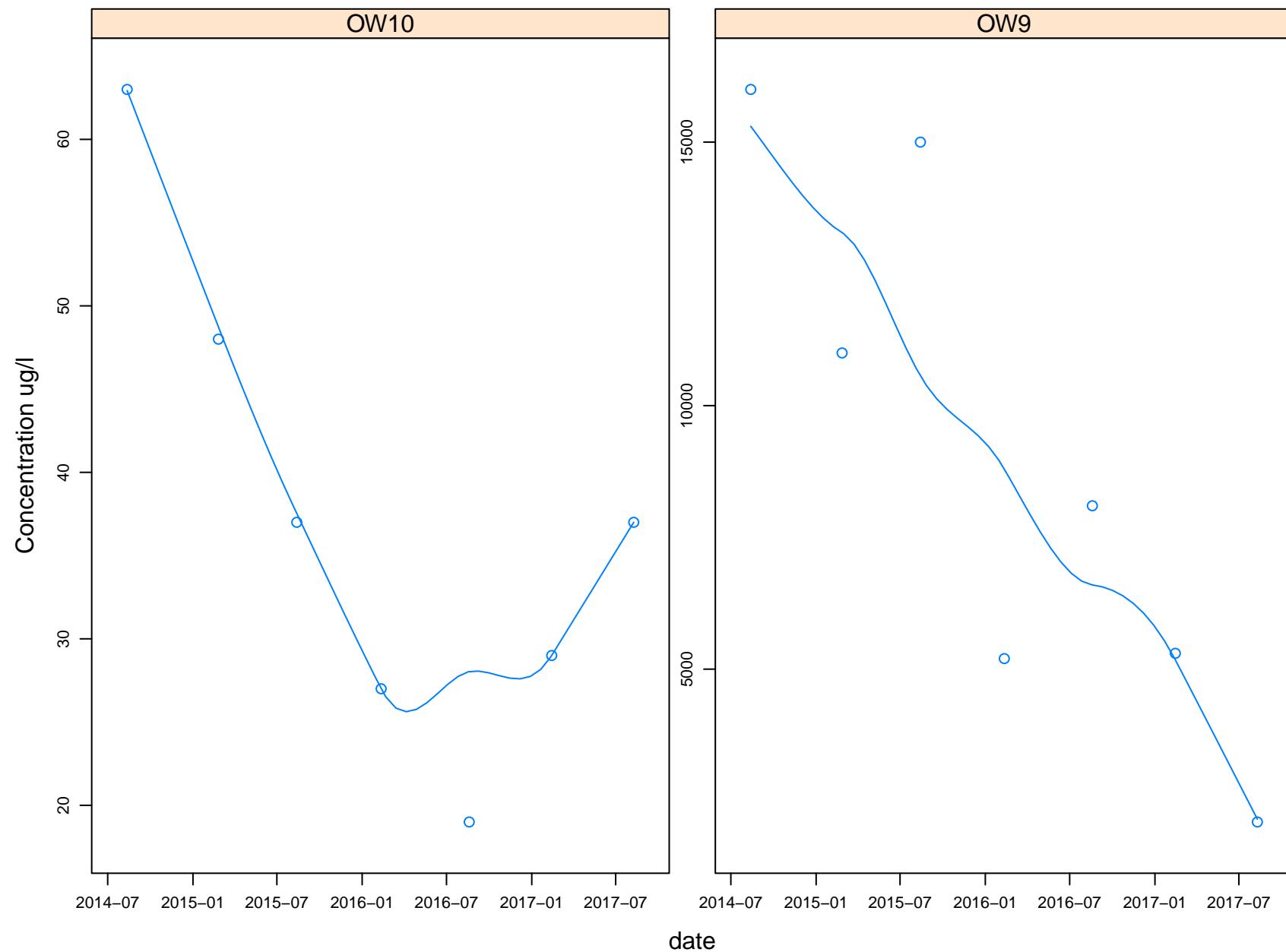
OW10



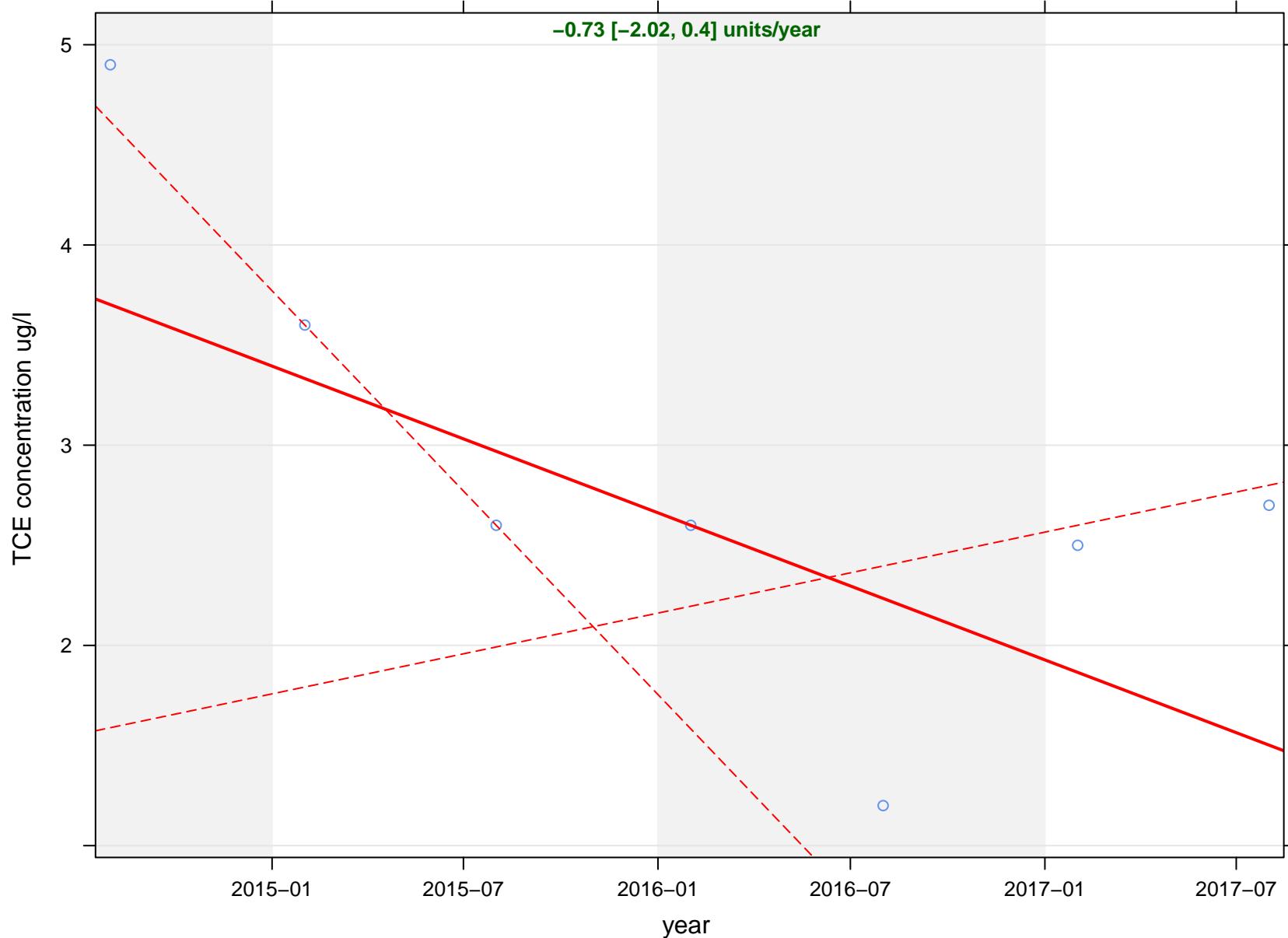
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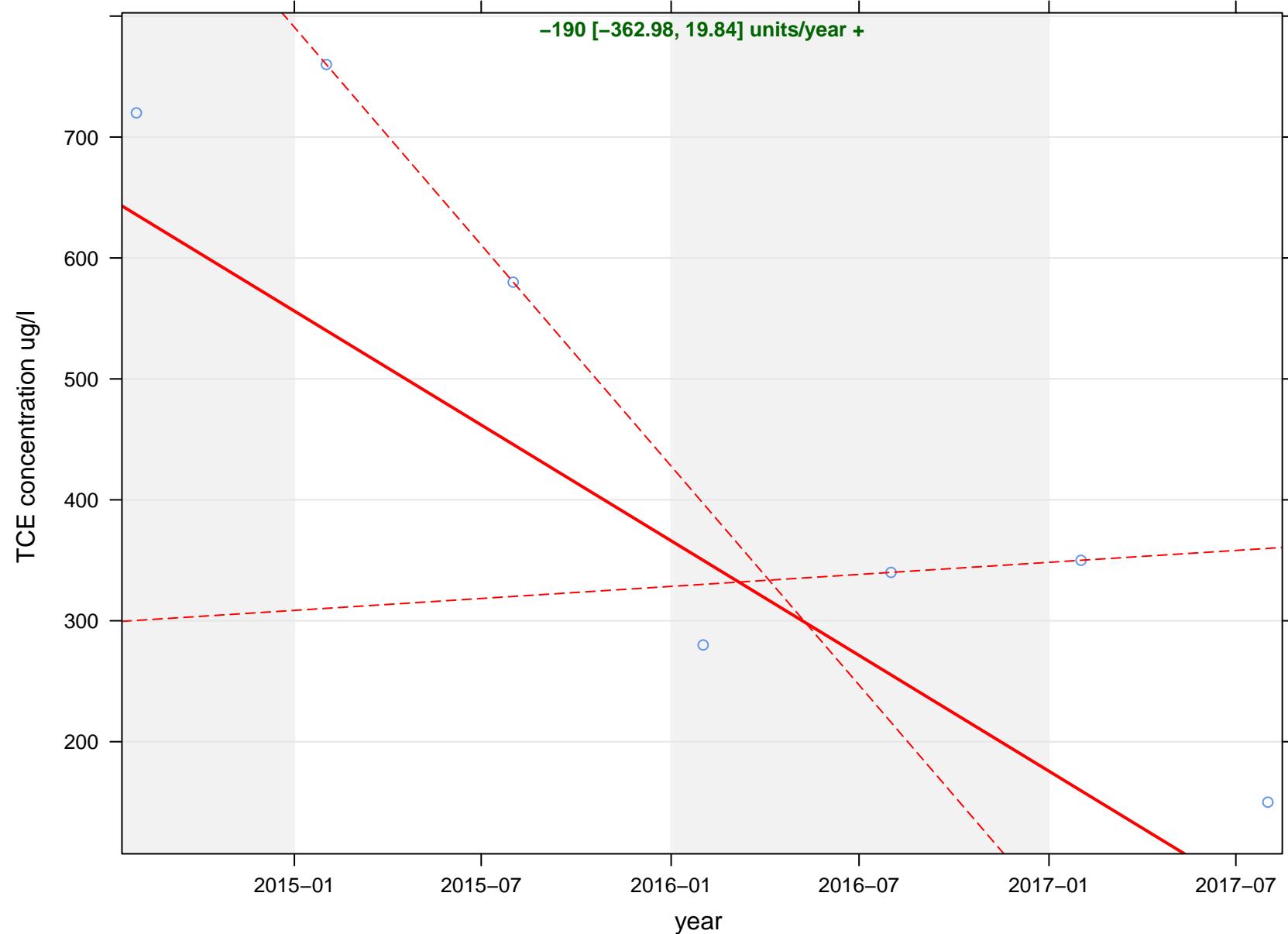
PCE concentration ug/l



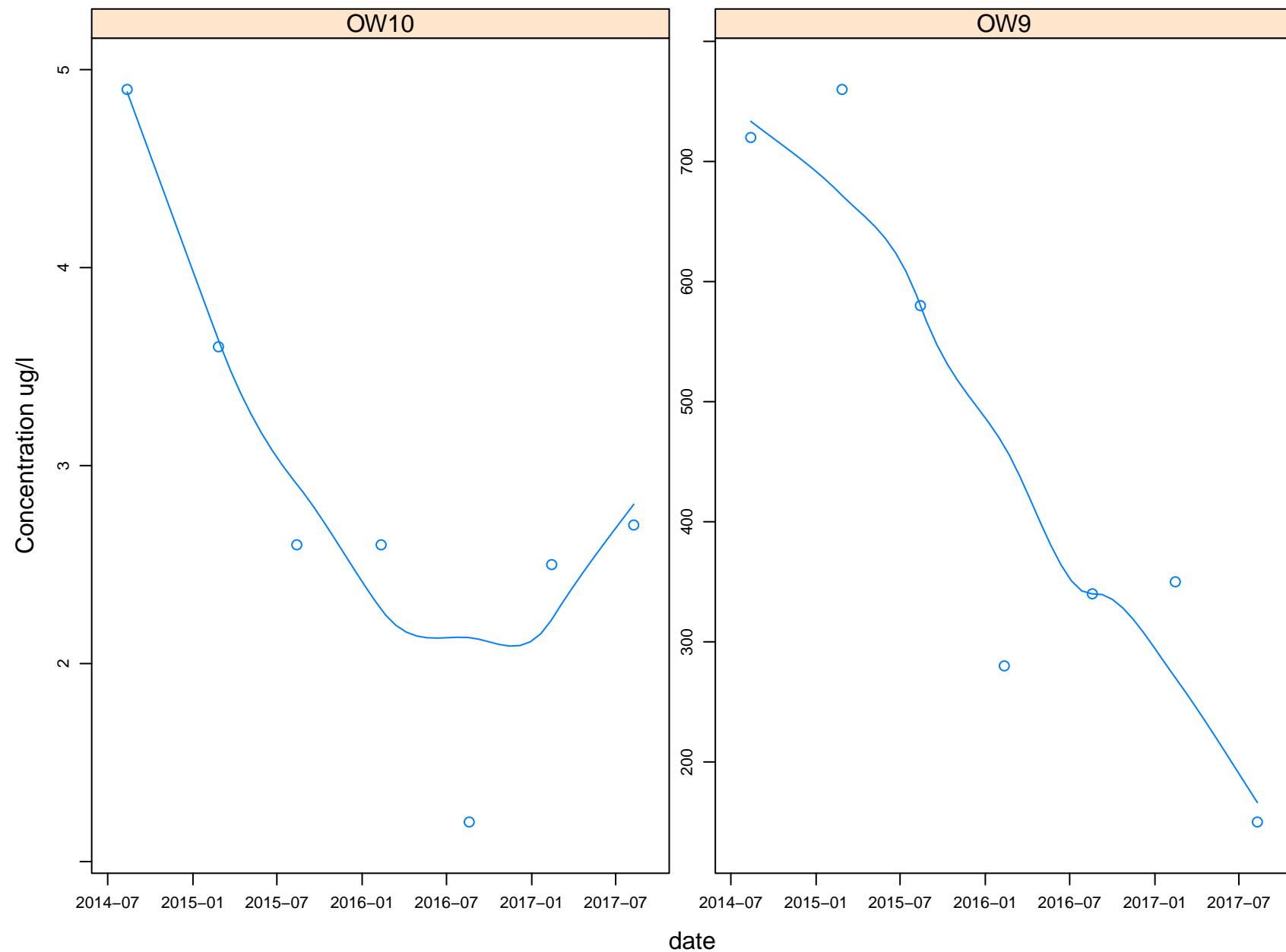
OW10



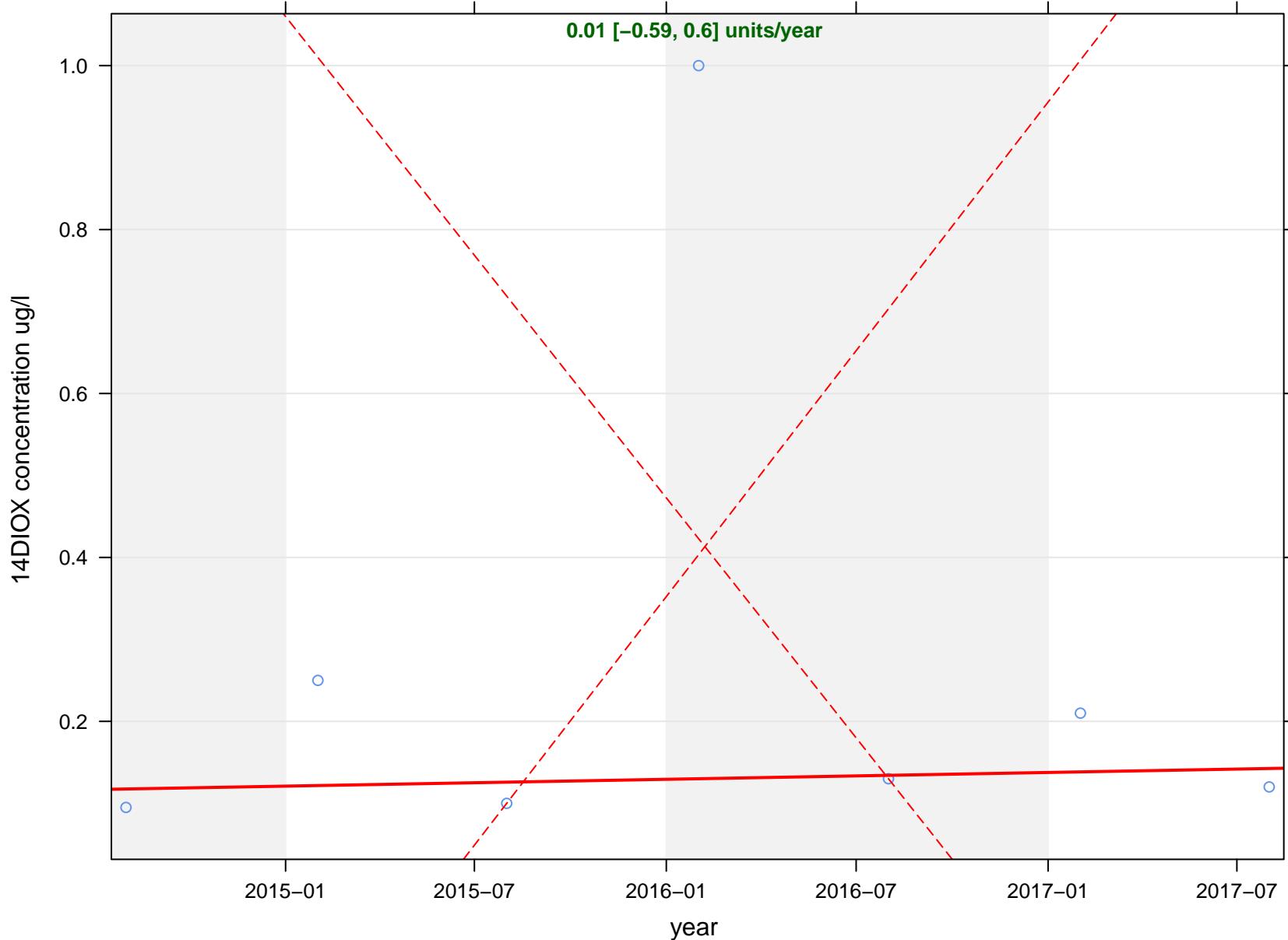
OW9



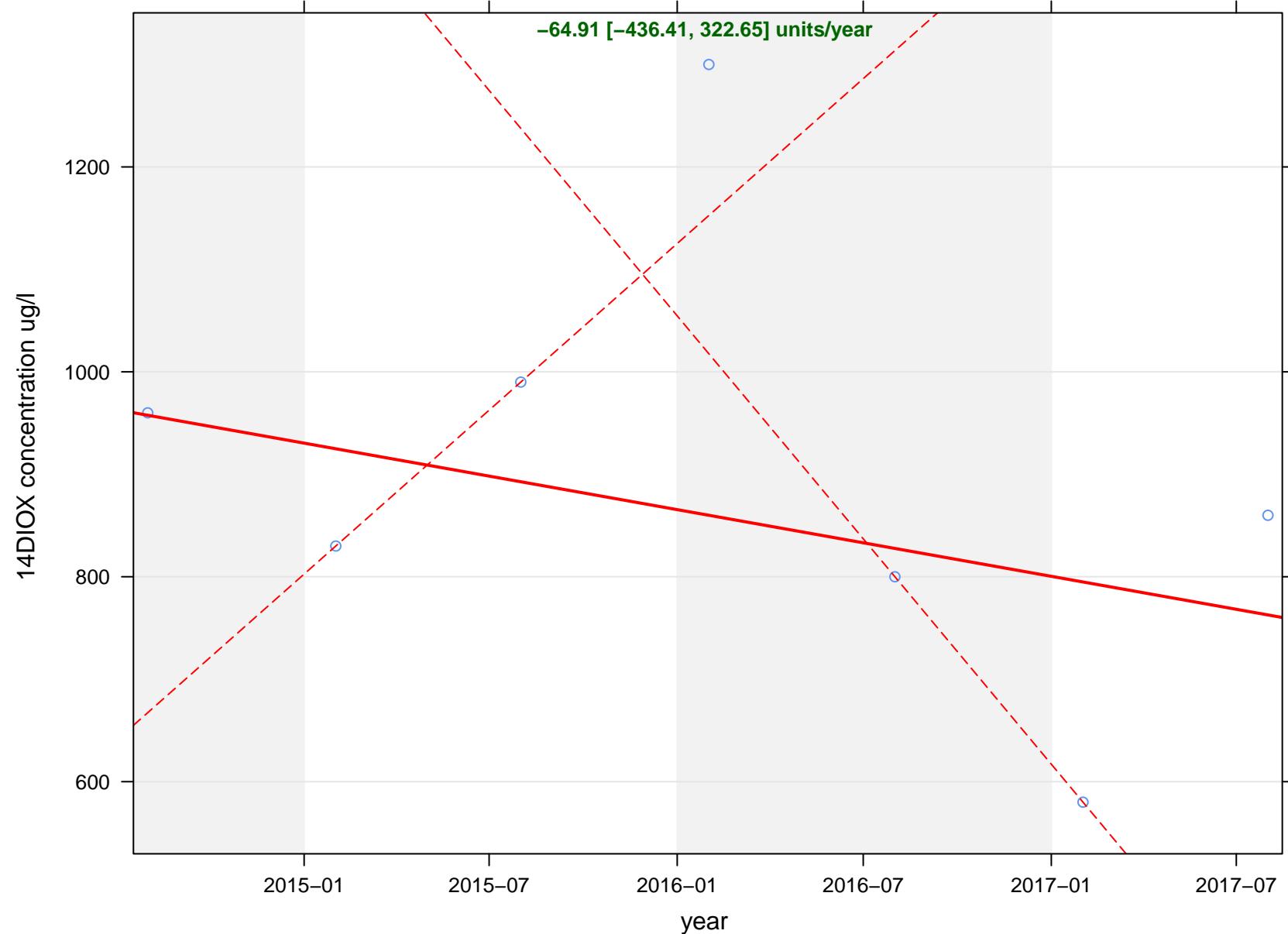
TCE concentration ug/l



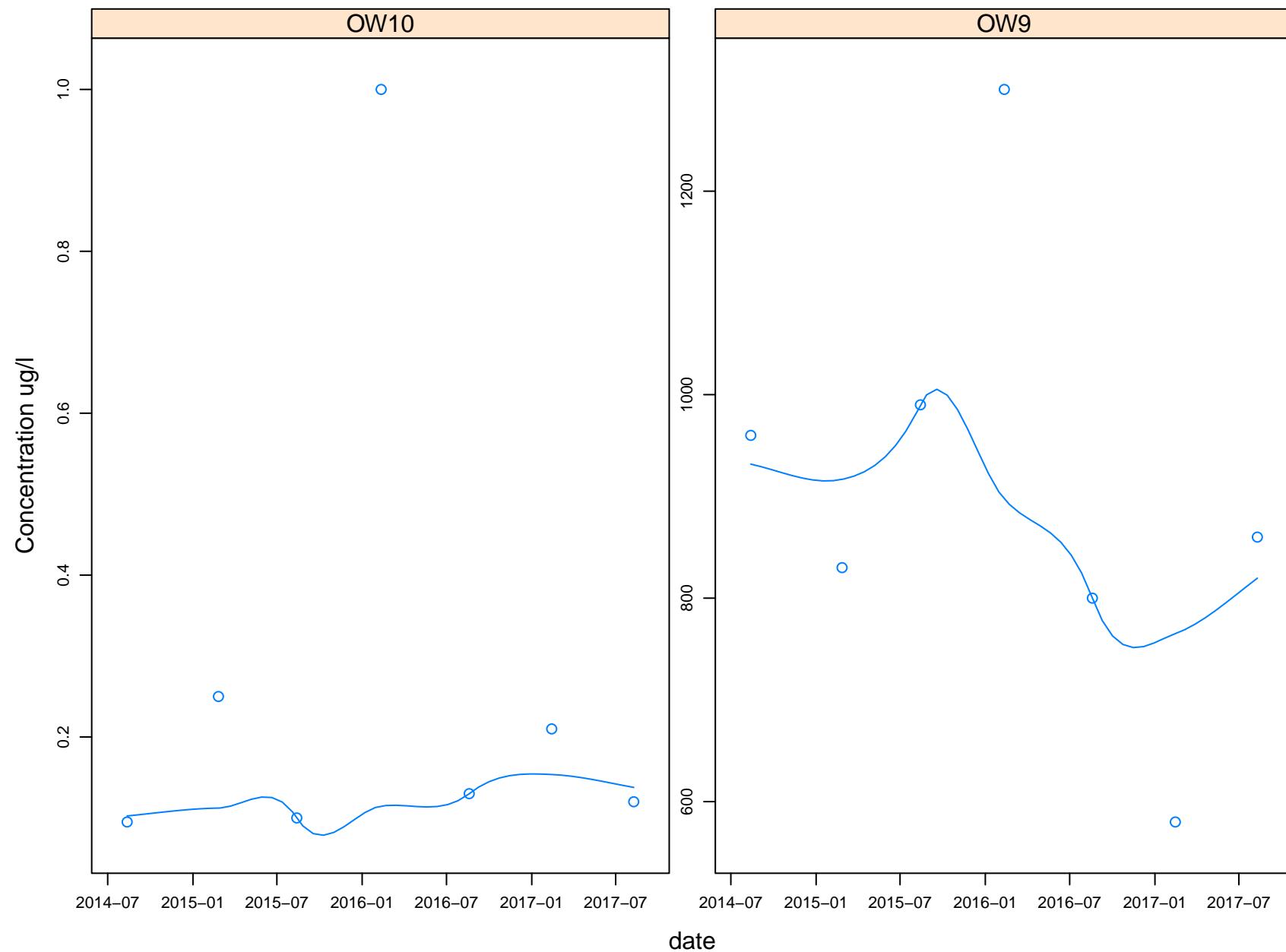
OW10



OW9



14DIOX concentration ug/l



Attachment D
Third Quarter Field Forms

OMEGA
DAILY FIELD REPORT

Project Name: Omega Chemical		Project #: E742	Date: 8/7/17
Personnel: K. Aylor, P. Brooks	Sub Contractors: -		
Arrival Time: 0600	Departure Time: 1500	Hours on Site: 9-0	
Odometer (Start): -	Odometer (End): -	Total Miles: -	
Task Description: SVE 1 OMM <input checked="" type="checkbox"/> SVE 2 OMM <input type="checkbox"/> GWTS OMM <input type="checkbox"/> + Semi-Durnal GWM			

Equipment List:

- | | | |
|---|-------------------------------|------------------------|
| <input checked="" type="checkbox"/> Vacuum Meter | Type: Extech Manometer 407910 | Serial #: 2147350 |
| <input type="checkbox"/> Vacuum Meter | Type: Fluke 922 Low range | Serial #: 98040163 |
| <input checked="" type="checkbox"/> PID | Type: ppbMiniRAE 3000 | Serial #: 594-907978 |
| <input checked="" type="checkbox"/> Sample Pump | Type: Thomas Pump | Serial #: 061000166406 |
| <input checked="" type="checkbox"/> Flow Meter | Type: Velocicalc 9565 | Serial #: 9565P1531034 |
| <input type="checkbox"/> Water Level Meter | Type: Solinst 101 | Serial #: 48231 |
| <input checked="" type="checkbox"/> Water Quality Meter | Type: Horiba U-52 | Serial #: 21195 |
| <input type="checkbox"/> Generator/Battery | Type: _____ | Serial #: _____ |
| <input type="checkbox"/> Other(s): _____ | | |

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel/visitors at site, calibration times and methods.)

0600 Arrive on site. HTS. Get gear ready. Mobilize equipment.
 Calibrate PID (0.05 ppb): 10 ppb / 5005 ppb Hexane.
 Calibrate WA meter: 4.00 pH, 4.48 mg/L, 0.2 NTU, 10.18 mg/L
 0645 Go to SVE. Start OMM.
 0715 Finish OMM. Go to DW's. Calibrate PID: 1007 ppb Isobutylene
 Start collecting grab samples.

Client Signature (if applicable): _____ Date: _____

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 8/7/17
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0930 Adjust gate valve @ DPE-9, flow = 1.0 gpm

1400 Finish CSM for the day. Go to trailer. Demobilize equipment.

Finish up paperwork.

1422 Test America arrives on site.

1500 Check out off site.

OMEGA
DAILY FIELD REPORT

Project Name:	Omega Chemical	Project #:	E742	Date:	8/8/17
Personnel:	K. Dzhr, P. Rocka	Sub Contractors: -			
Arrival Time:	0530	Departure Time:	1530	Hours on Site:	10.0
Odometer (Start):	-	Odometer (End):	-	Total Miles:	-
Task Description:	SVE 1 OMM <input type="checkbox"/> SVE 2 OMM <input type="checkbox"/> GWTS OMM <input type="checkbox"/> Semi Annual GWM				

Equipment List:

- | | | |
|---|--|-----------------------------------|
| <input type="checkbox"/> Vacuum Meter | Type: Extech Manometer 407910 | Serial #: 2147350 |
| <input type="checkbox"/> Vacuum Meter | Type: Fluke 922 Low range | Serial #: 98040163 |
| <input checked="" type="checkbox"/> PID | Type: ppbMiniRAE 3000 | Serial #: 594-907978 |
| <input checked="" type="checkbox"/> Sample Pump | Type: Thomas Pump
Ground Gas Reciprocating 2" | Serial #: 061000166406
2543308 |
| <input type="checkbox"/> Flow Meter | Type: Velocicalc 9565 | Serial #: 9565P1531034 |
| <input checked="" type="checkbox"/> Water Level Meter | Type: Solinst 101 | Serial #: 48231 |
| <input checked="" type="checkbox"/> Water Quality Meter | Type: Hach 4-52 | Serial #: 21195 |
| <input checked="" type="checkbox"/> Generator/Battery | Type: _____ | Serial #: _____ |
| <input type="checkbox"/> Other(s): _____ | | |

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel/visitors at site, calibration times and methods.)

0530 Arrive onsite. 14+5. Set delineators next to Putnam DW's.
 0545 into trailer. Get paperwork ready. Mobilize equipment. Calibrate PID (0PPB ppb): 4 ppb / 1000 ppb Isobutylene.
 0630 Go to new DPB well to collect WL's since HMI is not showing any data/well info due to communication error.
 0700 Calibrate WQ meter: 4.00 pH, 4.48^{mg/L} Am, 0.2 NTU, 10.32^{mg/L}

Client Signature (if applicable): _____ Date: _____

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 8/8/17
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- 0730 start GwM.
- 1130 Go to GwTS to pump out purge GW.
- 1140 System shut down due to hi sample. Break for lunch.
- 1200 Restart system.
- 1230 Back onsite. Finish pumping out water.
- 1330 Go to OW-12. Purge until well is dry. Well is not on list to monitor.
- 1415 Go to GwTS compound. Pump out water. Collect equipment blank, labeled as "OC-GW-OW-12N-20170808."
- 1440 Test Ametek carrier onsite.
- 1530 clean up. off site.



DAILY SAFETY MEETING

Project Name: Omega Chemical

Date: 8/8/17

Project Number: E742

Presented by: Khalid Azhar

Check the Topics/Information Reviewed:

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Safety is everyone's responsibility | <input checked="" type="checkbox"/> Smoking in designated areas | <input type="checkbox"/> Upgrade to Level C at: PID (<u> </u> eV) > <u> </u> ppmv |
| <input checked="" type="checkbox"/> Accidents can be costly | <input checked="" type="checkbox"/> Parking and lay down area | <input type="checkbox"/> Work stoppage at: PID (<u> </u> eV) > <u> </u> ppmv, % LEL > 10% |
| <input checked="" type="checkbox"/> No horseplay | <input checked="" type="checkbox"/> Leather gloves for protection | <input type="checkbox"/> All underground utilities cleared? |
| <input checked="" type="checkbox"/> Site health and safety plan reviewed | <input checked="" type="checkbox"/> Vehicle backing up hazards | <input checked="" type="checkbox"/> Flex-N-Stretch performed |
| <input checked="" type="checkbox"/> Review emergency protocol | <input checked="" type="checkbox"/> Sharp object, rebar, and scrap metal hazards | <input type="checkbox"/> Anticipated visitors |
| <input checked="" type="checkbox"/> Directions to hospital (<u>PW</u>) | <input checked="" type="checkbox"/> Effects of the night before? | <input type="checkbox"/> Temporary Power Lines |
| <input checked="" type="checkbox"/> Employee Right-To-Know/SDS location | <input checked="" type="checkbox"/> Weather conditions (rain/snow) | <input type="checkbox"/> Overhead Utilities |
| <input checked="" type="checkbox"/> First aid, safety, and PPE location | <input checked="" type="checkbox"/> Latex gloves inner/nitrile gloves outer | <input type="checkbox"/> Excavations/Trenches (competent person) |
| <input checked="" type="checkbox"/> Safety glasses, hard hat, safety boots | <input checked="" type="checkbox"/> Vibration related injuries | <input type="checkbox"/> Heavy Equipment Operations |
| <input checked="" type="checkbox"/> Fire extinguisher locations | <input checked="" type="checkbox"/> Open pits, excavations, and trenching hazards | <input type="checkbox"/> Overloaded Equipment (tipping) |
| <input checked="" type="checkbox"/> Daily work scope reviewed | <input checked="" type="checkbox"/> Noise hazards | <input checked="" type="checkbox"/> Heavy Lifting |
| <input checked="" type="checkbox"/> Strains and sprains | <input checked="" type="checkbox"/> Dust and vapor control | <input type="checkbox"/> Traffic |
| <input checked="" type="checkbox"/> Slips, trips, and falls | <input checked="" type="checkbox"/> Excavation/trenching inspections/documentation | <input checked="" type="checkbox"/> Exclusion Zones |
| <input checked="" type="checkbox"/> Eye wash station locations | <input checked="" type="checkbox"/> Confined space entry – permit required | <input checked="" type="checkbox"/> Uneven Terrain |
| <input checked="" type="checkbox"/> Electrical ground fault | <input checked="" type="checkbox"/> Confined space entry – non-permit required | <input checked="" type="checkbox"/> Chemicals |
| <input checked="" type="checkbox"/> Vehicle safety and driving/road conditions | <input checked="" type="checkbox"/> Refueling procedures | <input checked="" type="checkbox"/> Flammability |
| <input checked="" type="checkbox"/> Public safety and fences | <input checked="" type="checkbox"/> Full face respirators with proper cartridges | <input checked="" type="checkbox"/> Wet Surfaces |
| <input checked="" type="checkbox"/> Heat and cold stress | <input checked="" type="checkbox"/> Hot work permits | <input checked="" type="checkbox"/> Ladder Safety |
| <input checked="" type="checkbox"/> Equipment and machinery familiarization | <input checked="" type="checkbox"/> Flying debris hazards | <input checked="" type="checkbox"/> Pinch Points |
| <input checked="" type="checkbox"/> Excavator swing and loading | <input checked="" type="checkbox"/> Overhead utility locations cleared. | <input type="checkbox"/> Unexploded Ordnance (UXO) Hazard |
| <input checked="" type="checkbox"/> Decontamination steps | <input checked="" type="checkbox"/> Poison ivy/oak/sumac/insects/animals | <input type="checkbox"/> Daily Vehicle Walkaround/Inspection |
| <input checked="" type="checkbox"/> Portable tool safety and awareness | | |
| <input checked="" type="checkbox"/> Orderly site and housekeeping | | |

Other Discussion Items/Comments/Follow-up Actions: stay by job site

JHA Site Health and Safety Officer (SHSO) of the day: Khalid Azhar

NAME

SIGNATURE

COMPANY

Khalid Azhar
Paul J. Rocker

Don Diller

JHA
JHA

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
- Complete form, obtain signatures, and file with the Daily Summary
- Follow-up on any noted items and document resolution of any action items.

OMEGA
DAILY FIELD REPORT

Project Name: Omega Chemical		Project #: E742	Date: 8/9/17
Personnel: <u>C. Kelly, P. Rocke</u>	Sub Contractors: -		
Arrival Time: <u>0600</u>	Departure Time: <u>1600</u>	Hours on Site: <u>10.0</u>	
Odometer (Start): <u>-</u>	Odometer (End): <u>-</u>	Total Miles: <u>-</u>	
Task Description: SVE 1 OMM <input type="checkbox"/> SVE 2 OMM <input type="checkbox"/> GWTS OMM <input checked="" type="checkbox"/> <u>+ Semi Annual GWM</u>			

Equipment List:

- | | | |
|---|---|------------------------------------|
| <input type="checkbox"/> Vacuum Meter | Type: Extech Manometer 407910 | Serial #: 2147350 |
| <input type="checkbox"/> Vacuum Meter | Type: Fluke 922 Low range | Serial #: 98040163 |
| <input checked="" type="checkbox"/> PID | Type: ppbMiniRAE 3000 | Serial #: 594-907978 |
| <input checked="" type="checkbox"/> Sample Pump | Type: Thomas Pump
2" Groundless Redi-fit | Serial #: 061000166406
254 3308 |
| <input checked="" type="checkbox"/> Flow Meter | Type: Velocicalc 9565 | Serial #: 9565P1531034 |
| <input checked="" type="checkbox"/> Water Level Meter | Type: Solinst 101 | Serial #: 48231 |
| <input checked="" type="checkbox"/> Water Quality Meter | Type: <u>Hach U-52</u> | Serial #: <u>2115</u> |
| <input type="checkbox"/> Generator/Battery | Type: _____ | Serial #: _____ |
| <input type="checkbox"/> Other(s): _____ | | |

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel/visitors at site, calibration times and methods.)

0600 Arrive on site. H+S. Get paperwork ready. Mobilize equipment.

0610 Calibrate PID (POG ppb): 0 ppb / 5010 ppb Hexane.

0615 Start GWM run.

0635 Finish run. Calibrate PID: 0 ppb / 1.00 ppm Isobutylene.

0645 Go to OW-^{3A}, start GWM. OW-3A cannot be purged, not enough water in well. OW-10 & PZ-9 dried out while purging.

Client Signature (if applicable): _____ Date: _____

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 8/9/17
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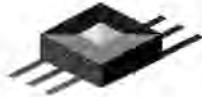
1230 Lunch.

1300 Go to trailer. P/u equipment. Go to SW-10 & PR-9. Whis recharged to 80%. Collect samples.

1415 Go to GWTs compound. Demobilize equipment. Collect ETB.

1520 TA cover onsite to pick up samples. Send out field sheets.

1600 Clean up. off site.



DAILY SAFETY MEETING

Project Name: Omega Chemical

Date: 8/7/14

Project Number: E742

Presented by: Khalid Azhar

Check the Topics/Information Reviewed:

- | | | |
|---|---|--|
| <input type="checkbox"/> Safety is everyone's responsibility | <input type="checkbox"/> Smoking in designated areas | <input type="checkbox"/> Upgrade to Level C at: PID (<u> </u> eV) > <u> </u> ppmv |
| <input type="checkbox"/> Accidents can be costly | <input type="checkbox"/> Parking and lay down area | <input type="checkbox"/> Work stoppage at: PID (<u> </u> eV) > <u> </u> ppmv, % LEL > 10% |
| <input type="checkbox"/> No horseplay | <input type="checkbox"/> Leather gloves for protection | <input type="checkbox"/> All underground utilities cleared? |
| <input type="checkbox"/> Site health and safety plan reviewed | <input type="checkbox"/> Vehicle backing up hazards | <input checked="" type="checkbox"/> Flex-N-Stretch performed |
| <input type="checkbox"/> Review emergency protocol | <input type="checkbox"/> Sharp object, rebar, and scrap metal hazards | <input type="checkbox"/> Anticipated visitors |
| <input type="checkbox"/> Directions to hospital (<u>PIL</u>) | <input type="checkbox"/> Effects of the night before? | <input type="checkbox"/> Temporary Power Lines |
| <input type="checkbox"/> Employee Right-To-Know/SDS location | <input type="checkbox"/> Weather conditions (rain/snow) | <input type="checkbox"/> Overhead Utilities |
| <input type="checkbox"/> First aid, safety, and PPE location | <input type="checkbox"/> Latex gloves inner/nitrile gloves outer | <input type="checkbox"/> Excavations/Trenches (competent person) |
| <input type="checkbox"/> Safety glasses, hard hat, safety boots | <input type="checkbox"/> Vibration related injuries | <input type="checkbox"/> Heavy Equipment Operations |
| <input type="checkbox"/> Fire extinguisher locations | <input type="checkbox"/> Open pits, excavations, and trenching hazards | <input type="checkbox"/> Overloaded Equipment (tipping) |
| <input type="checkbox"/> Daily work scope reviewed | <input type="checkbox"/> Noise hazards | <input type="checkbox"/> Heavy Lifting |
| <input type="checkbox"/> Strains and sprains | <input type="checkbox"/> Dust and vapor control | <input type="checkbox"/> Traffic |
| <input type="checkbox"/> Slips, trips, and falls | <input type="checkbox"/> Excavation/trenching inspections/documentation | <input type="checkbox"/> Exclusion Zones |
| <input type="checkbox"/> Eye wash station locations | <input type="checkbox"/> Confined space entry – permit required | <input type="checkbox"/> Uneven Terrain |
| <input type="checkbox"/> Electrical ground fault | <input type="checkbox"/> Confined space entry – non-permit required | <input type="checkbox"/> Chemicals |
| <input type="checkbox"/> Vehicle safety and driving/road conditions | <input type="checkbox"/> Refueling procedures | <input type="checkbox"/> Flammability |
| <input type="checkbox"/> Public safety and fences | <input type="checkbox"/> Full face respirators with proper cartridges | <input type="checkbox"/> Wet Surfaces |
| <input type="checkbox"/> Heat and cold stress | <input type="checkbox"/> Hot work permits | <input type="checkbox"/> Ladder Safety |
| <input type="checkbox"/> Equipment and machinery familiarization | <input type="checkbox"/> Flying debris hazards | <input type="checkbox"/> Pinch Points |
| <input type="checkbox"/> Excavator swing and loading | <input type="checkbox"/> Overhead utility locations cleared. | <input type="checkbox"/> Unexploded Ordnance (UXO) Hazard |
| <input type="checkbox"/> Decontamination steps | <input type="checkbox"/> Poison ivy/oak/sumac/insects/animals | <input checked="" type="checkbox"/> Daily Vehicle Walkaround/Inspection |
| <input type="checkbox"/> Portable tool safety and awareness | | |
| <input type="checkbox"/> Orderly site and housekeeping | | |

Other Discussion Items/Comments/Follow-up Actions: Stay hydrated

JHA Site Health and Safety Officer (SHSO) of the day: Khalid Azhar

NAME	SIGNATURE	COMPANY
<u>Khalid Azhar</u> <u>Paul T Rocka</u>	<u>John</u> <u>Dal Shifer</u>	<u>JHA</u> <u>JHA</u>

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
- Complete form, obtain signatures, and file with the Daily Summary
- Follow-up on any noted items and document resolution of any action items.

aOMEGA
DAILY FIELD REPORT

Project Name: Omega Chemical		Project #: E742	Date: 8/10/17
Personnel: JC-Acheson, P. Zuckerman	Sub Contractors:		
Arrival Time: 0530	Departure Time: 1530	Hours on Site: 8:0	
Odometer (Start): —	Odometer (End): —	Total Miles: —	
Task Description: SVE 1 OMM <input type="checkbox"/> SVE 2 OMM <input type="checkbox"/> GWTS OMM <input type="checkbox"/>			
Semi Annual GWM			

Equipment List:

<input type="checkbox"/> Vacuum Meter	Type: Extech Manometer 407910	Serial #: 2147350
<input type="checkbox"/> Vacuum Meter	Type: Fluke 922 Low range	Serial #: 98040163
<input checked="" type="checkbox"/> PID	Type: ppbMiniRAE 3000	Serial #: 594-907978
<input checked="" type="checkbox"/> Sample Pump	Type: Thomas Pump 2" Ground Rod Radi Slo	Serial #: 061000166406 2543308
<input type="checkbox"/> Flow Meter	Type: Velocicalc 9565	Serial #: 9565P1531034
<input checked="" type="checkbox"/> Water Level Meter	Type: Solinst 101	Serial #: 48231
<input checked="" type="checkbox"/> Water Quality Meter	Type: Horiba U-52	Serial #: 21195
<input type="checkbox"/> Generator/Battery	Type: _____	Serial #: _____
<input type="checkbox"/> Other(s): _____		

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel/visitors at site, calibration times and methods.)

0530 Arrive onsite (LTC). Get paperwork ready. Mobilize equipment.
 Calibrate PID (0.000 ppb): 0 ppb / 1001 ppb Isobutylene.
 0630 Goto OW-9. Calibrate WQ: 4.00 pH, 4.50 mS/cm, 0.0 NTU, 9.56 mg/L.
 0635 Start GWM @ OW-9
 0830 Goto OW-12. Start purging. Well goes dry.
 1020 Goto OW-11. start purging. JD and CR onsite.

Client Signature (if applicable): _____ Date: _____

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 8/10/17
------------------------------	-----------------	---------------

1200 Finish Q swl. ~~to~~ Goto Crwd. Demobilize equipment. Collect equipment
blank.

1300 Clean up off site.



JHA
ENVIRONMENTAL

DAILY SAFETY MEETING

Project Name: Omega Chemical

Date: K. Dohr

Project Number: E742

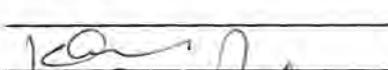
Presented by: Khalid Azhar

Check the Topics/Information Reviewed:

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Safety is everyone's responsibility
<input checked="" type="checkbox"/> Accidents can be costly
<input checked="" type="checkbox"/> No horseplay
<input checked="" type="checkbox"/> Site health and safety plan reviewed
<input checked="" type="checkbox"/> Review emergency protocol
<input checked="" type="checkbox"/> Directions to hospital (<u>RH</u>)
<input checked="" type="checkbox"/> Employee Right-To-Know/SDS location
<input checked="" type="checkbox"/> First aid, safety, and PPE location
<input checked="" type="checkbox"/> Safety glasses, hard hat, safety boots
<input checked="" type="checkbox"/> Fire extinguisher locations
<input checked="" type="checkbox"/> Daily work scope reviewed
<input checked="" type="checkbox"/> Strains and sprains
<input checked="" type="checkbox"/> Slips, trips, and falls
<input checked="" type="checkbox"/> Eye wash station locations
<input checked="" type="checkbox"/> Electrical ground fault
<input checked="" type="checkbox"/> Vehicle safety and driving/road conditions
<input checked="" type="checkbox"/> Public safety and fences
<input checked="" type="checkbox"/> Heat and cold stress
<input checked="" type="checkbox"/> Equipment and machinery familiarization
<input checked="" type="checkbox"/> Excavator swing and loading
<input checked="" type="checkbox"/> Decontamination steps
<input checked="" type="checkbox"/> Portable tool safety and awareness
<input checked="" type="checkbox"/> Orderly site and housekeeping | <input checked="" type="checkbox"/> Smoking in designated areas
<input checked="" type="checkbox"/> Parking and lay down area
<input checked="" type="checkbox"/> Leather gloves for protection
<input checked="" type="checkbox"/> Vehicle backing up hazards
<input checked="" type="checkbox"/> Sharp object, rebar, and scrap metal hazards
<input checked="" type="checkbox"/> Effects of the night before?
<input checked="" type="checkbox"/> Weather conditions (rain/snow)
<input checked="" type="checkbox"/> Latex gloves inner/nitrile gloves outer
<input checked="" type="checkbox"/> Vibration related injuries
<input checked="" type="checkbox"/> Open pits, excavations, and trenching hazards
<input checked="" type="checkbox"/> Noise hazards
<input checked="" type="checkbox"/> Dust and vapor control
<input checked="" type="checkbox"/> Excavation/trenching inspections/documentation
<input checked="" type="checkbox"/> Confined space entry – permit required
<input checked="" type="checkbox"/> Confined space entry – non-permit required
<input checked="" type="checkbox"/> Refueling procedures
<input checked="" type="checkbox"/> Full face respirators with proper cartridges
<input checked="" type="checkbox"/> Hot work permits
<input checked="" type="checkbox"/> Flying debris hazards
<input checked="" type="checkbox"/> Overhead utility locations cleared.
<input checked="" type="checkbox"/> Poison ivy/oak/sumac/insects/animals | <input checked="" type="checkbox"/> Upgrade to Level C at: PID (___ eV) > ___ ppmv
<input checked="" type="checkbox"/> Work stoppage at: PID (___ eV) > ___ ppmv, % LEL > 10%
<input checked="" type="checkbox"/> All underground utilities cleared?
<input checked="" type="checkbox"/> Flex-N-Stretch performed
<input checked="" type="checkbox"/> Anticipated visitors
<input checked="" type="checkbox"/> Temporary Power Lines
<input checked="" type="checkbox"/> Overhead Utilities
<input checked="" type="checkbox"/> Excavations/Trenches (competent person)
<input checked="" type="checkbox"/> Heavy Equipment Operations
<input checked="" type="checkbox"/> Overloaded Equipment (tipping)
<input checked="" type="checkbox"/> Heavy Lifting
<input checked="" type="checkbox"/> Traffic
<input checked="" type="checkbox"/> Exclusion Zones
<input checked="" type="checkbox"/> Uneven Terrain
<input checked="" type="checkbox"/> Chemicals
<input checked="" type="checkbox"/> Flammability
<input checked="" type="checkbox"/> Wet Surfaces
<input checked="" type="checkbox"/> Ladder Safety
<input checked="" type="checkbox"/> Pinch Points
<input checked="" type="checkbox"/> Unexploded Ordnance (UXO) Hazard
<input checked="" type="checkbox"/> Daily Vehicle Walkaround/Inspection |
|--|--|--|

Other Discussion Items/Comments/Follow-up Actions: Stay hydrated

JHA Site Health and Safety Officer (SHSO) of the day: John Aker

NAME	SIGNATURE	COMPANY
Kevin Arthur Paul J Rocker	 Dolphin	JHA JDA

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
 - Complete form, obtain signatures, and file with the Daily Summary
 - Follow-up on any noted items and document resolution of any action items.



DAILY SAFETY MEETING

Project Name: Omega Chemical

Date: 8/11/17

Project Number: E742

Presented by: Khalid Azhar

Check the Topics/Information Reviewed:

- | | | |
|---|---|--|
| <input type="checkbox"/> Safety is everyone's responsibility | <input type="checkbox"/> Smoking in designated areas | <input type="checkbox"/> Upgrade to Level C at: PID (<u> </u> eV) > <u> </u> ppmv |
| <input type="checkbox"/> Accidents can be costly | <input type="checkbox"/> Parking and lay down area | <input type="checkbox"/> Work stoppage at: PID (<u> </u> eV) > <u> </u> ppmv, % LEL > 10% |
| <input type="checkbox"/> No horseplay | <input type="checkbox"/> Leather gloves for protection | <input type="checkbox"/> All underground utilities cleared? |
| <input type="checkbox"/> Site health and safety plan reviewed | <input type="checkbox"/> Vehicle backing up hazards | <input type="checkbox"/> Flex-N-Stretch performed |
| <input type="checkbox"/> Review emergency protocol | <input type="checkbox"/> Sharp object, rebar, and scrap metal hazards | <input type="checkbox"/> Anticipated visitors |
| <input type="checkbox"/> Directions to hospital (<u>Pitt</u>) | <input type="checkbox"/> Effects of the night before? | <input type="checkbox"/> Temporary Power Lines |
| <input type="checkbox"/> Employee Right-To-Know/SDS location | <input type="checkbox"/> Weather conditions (rain/snow) | <input type="checkbox"/> Overhead Utilities |
| <input type="checkbox"/> First aid, safety, and PPE location | <input type="checkbox"/> Latex gloves inner/nitrile gloves outer | <input type="checkbox"/> Excavations/Trenches (competent person) |
| <input type="checkbox"/> Safety glasses, hard hat, safety boots | <input type="checkbox"/> Vibration related injuries | <input type="checkbox"/> Heavy Equipment Operations |
| <input type="checkbox"/> Fire extinguisher locations | <input type="checkbox"/> Open pits, excavations, and trenching hazards | <input type="checkbox"/> Overloaded Equipment (tipping) |
| <input type="checkbox"/> Daily work scope reviewed | <input type="checkbox"/> Noise hazards | <input type="checkbox"/> Heavy Lifting |
| <input type="checkbox"/> Strains and sprains | <input type="checkbox"/> Dust and vapor control | <input type="checkbox"/> Traffic |
| <input type="checkbox"/> Slips, trips, and falls | <input type="checkbox"/> Excavation/trenching inspections/documentation | <input type="checkbox"/> Exclusion Zones |
| <input type="checkbox"/> Eye wash station locations | <input type="checkbox"/> Confined space entry – permit required | <input type="checkbox"/> Uneven Terrain |
| <input type="checkbox"/> Electrical ground fault | <input type="checkbox"/> Confined space entry – non-permit required | <input type="checkbox"/> Chemicals |
| <input type="checkbox"/> Vehicle safety and driving/road conditions | <input type="checkbox"/> Refueling procedures | <input type="checkbox"/> Flammability |
| <input type="checkbox"/> Public safety and fences | <input type="checkbox"/> Full face respirators with proper cartridges | <input type="checkbox"/> Wet Surfaces |
| <input type="checkbox"/> Heat and cold stress | <input type="checkbox"/> Hot work permits | <input type="checkbox"/> Ladder Safety |
| <input type="checkbox"/> Equipment and machinery familiarization | <input type="checkbox"/> Flying debris hazards | <input type="checkbox"/> Pinch Points |
| <input type="checkbox"/> Excavator swing and loading | <input type="checkbox"/> Overhead utility locations cleared. | <input type="checkbox"/> Unexploded Ordnance (UXO) Hazard |
| <input type="checkbox"/> Decontamination steps | <input type="checkbox"/> Poison ivy/oak/sumac/insects/animals | <input type="checkbox"/> Daily Vehicle Walkaround/Inspection |
| <input type="checkbox"/> Portable tool safety and awareness | | |
| <input type="checkbox"/> Orderly site and housekeeping | | |

Other Discussion Items/Comments/Follow-up Actions: Stay hydrated

JHA Site Health and Safety Officer (SHSO) of the day: Khalid Azhar

NAME

SIGNATURE

COMPANY

Khalid Azhar
Paul J. Rocke

John D. Pitt

JHA
JHA

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
- Complete form, obtain signatures, and file with the Daily Summary
- Follow-up on any noted items and document resolution of any action items.

GROUNDWATER GAUGING FORM
 OMEGA CHEMICAL SUPERFUND SITE
 WHITTIER, CA

Date: 8/7 - 8/11

Technician(s): K. Dehar, P. Rocka

Well ID	Well Diameter (in)	Screen Interval (ft bTOC)	Date/Time	PID (ppmv)	Depth to Water (ft bTOC)	Total Depth (ft bTOC)	Previous Depth to Water 1st QTR 2017 (ft bTOC)	Previous Total Depth (ft bTOC)	Comments
EW-1	6	72 - 87	8/7/17 0738	Ø	86.42	-	87.4	-	
EW-2	6	72 - 87	8/7/17 0745	Ø	86.10	-	85.41	-	
EW-3	6	70 - 85	8/7/17 0750	Ø	83.70	-	84.15	-	
EW-4	6	71 - 86	8/7/17 0810	Ø	81.33	-	81.51	-	
EW-5	6	70 - 85	8/7/17 0828	Ø	81.58	-	80.97	-	
PZ-1	2	68 - 88	8/7/17 1304	0.070	DRY	87.30	86.63	87.22	DRY
PZ-2	2	64 - 84	8/7/17 1258	Ø	84.25*	84.55	84.25*	84.5	DRY
PZ-3	2	69.8 - 89.8	8/7/17 1255	Ø	DRY	88.40	89.2	89.28	DRY
PZ-4	2	70 - 90	8/7/17 1307	12.19	73.32	89.10	72.33	89.1	
PZ-5	4	83 - 98					90.67	98.44	
PZ-6	4	83 - 98					88.91	96.6	
PZ-7	4	86 - 101					93.56	101.2	
PZ-8	4	86 - 101					92.25	101.4	
PZ-9	2	70 - 90	8/9/17 0845	0.352	85.80	89.75	83.8	89.75	
OW-1a	4	62.5 - 77.5	8/7/17 1332	0.086	79.66*	82.90	79.26*	82.58	DRY
OW-1b	4	110 - 120	8/7/17 0957	1.019	92.90	118.0	94.35	118.1	
OW-2	4	60 - 80	8/7/17 1250	Ø	DRY	79.70	DRY	79.7	DRY
OW-3a	4	63 - 83	8/9/17 0657	Ø	81.95	82.40	81.39	82.38	
OW-3b	4	112 - 122	8/8/17 0704	5.726	91.91	122.0	93.7	121.95	
OW-4a	4	49.8 - 69.8					DRY*	74.05	
OW-4b	4	112 - 122					81.92	126.3	
OW-5	4	30 - 50					DRY	49.56	

NM



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Environmental

*WL is below the bottom screen interval

GROUNDWATER GAUGING FORM
 OMEGA CHEMICAL SUPERFUND SITE
 WHITTIER, CA

Date: 8/7 - 8/11

Technician(s): K. Azhar, P. Rocka

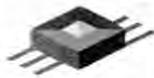
Well ID	Well Diameter (in)	Screen Interval (ft bTOC)	Date/Time	PID (ppmv)	Depth to Water (ft bTOC)	Total Depth (ft bTOC)	Previous Depth to Water 1st QTR 2017 (ft bTOC)	Previous Total Depth (ft bTOC)	Comments
OW-6	4	38 - 58	—	NM	NM	NM	DRY	58.21	
OW-7	4	70.9 - 90.9	8/7/17 1320	Ø	DRY	89.20	DRY	89.11	
OW-8a	4	60.4 - 80	8/8/17 0902	Ø	DRY	79.05	DRY	79.1	
OW-8b	4	116 - 126	8/8/17 0903	Ø	95.15	126.10	97.12	126	
OW-9	4	70 - 90	8/10/17 0630	Ø	85.97	89.85	85.73	89.72	
OW-10	4	69.5 - 89.5	8/5/17 0718	0.150	79.20	89.10	78.2	89.1	
OW-11	4	80 - 100	8/10/17 1047	0.408 87.70	87.70	98.80	87.4	98.8	
OW-12	4	80 - 100	8/8/17 1337	0.163	91.72	100.0	90.48	99	8/10/17 0840 92.45 DTW, 0.679 ppm
DPE-3	4	40 - 100	—	NM	NM	100.0	92.45	-	Vault is buried under large pile of loose material
DPE-4	4	40 - 100	8/7/17 0952	~	92.15	100.0	91.87	-	
DPE-5	4	40 - 100	8/7/17 1016	~	91.90	100.0	91.73	-	
DPE-8	4	40 - 100	8/7/17 1100	~	90.50	100.0	89.5	-	
DPE-9	4	40 - 100	8/7/17 0920	~	92.25	100.0	87.63	-	
VE-6D	4	40 - 100	—	NM	NM	NM	83.51	99.75	
VE-7D	4	40 - 100	8/8/17 0640	~	86.15	—	—	—	
VE-10D	4	40 - 70	8/8/17 0645	~	85.27	—	—	—	
VE-11D	4	40 - 70	8/8/17 0650	~	79.70	—	—	—	
VE-12D	4	40 - 70	—	NM	NM	NM	85.23	99.5	
VE-13D	4	40 - 70	8/8/17 0655	~	76.00	—	81.11	98.5	
VE-14D	4	40 - 100	—	NM	NM	NM			



Groundwater Sampling Data Sheet

 Page 1 of 1

Project Name: Omega Chemical Superfund Site					Date: 8/7/17							
Project No.: E742					Prepared By: K. Azher, R. Rocka							
Well Identification: EW-1					Weather: Overcast,							
Measurement Point Description: TOC -N					Pump Intake: 86.40	Screen: 72-87	Casing Material: PVC or SS					
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E/2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume				
86.42	88.45	-	-	-	-	-	-	-				
Well Diameter (in)		Gallons/Foot			Field Equipment: -			Well Headspace:	PID(ppm)= <u>0</u>			
		0.75	2	4	6	Purge Method: Dedicated pump, Grub sample			FID(ppm)= -			
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ()	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0738		CANNOT PUMP ANY WATER OUT. NOT ENOUGH IN WELL										
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification		
Notes												
Drum No.: Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system												



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/7/17								
Project No.: E742					Prepared By: K. Azhr, P. Rocka								
Well Identification: EW-2					Weather: Overcast, cool								
Measurement Point Description: TOC -N					Pump Intake: NA	Screen: 72-87	Casing Material: PVC or SS						
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (CxD=E)	D Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E/2)	G Above Screen Volume (Top screen - DTW)xD	H Screen Volume (Screen length x D)	I ½ Screen Volume					
86.10	88.10	—	—	—	—	—	—	—					
84.42 (HMI) Well Diameter (in)		Gallons/Foot			Field Equipment:				Well Headspace:		PID(ppm)= <u>0</u> FID(ppm)= <u>—</u>		
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Purge Method: Dedicated pump, Gav's sample							
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ()	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations	
0745	CANNOT	PUMP DRY WATER. NOT ENOUGH IN WELL											
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification			
Notes Drum No.: Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system													

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/7/17							
Project No.: E742					Prepared By: K. Arthur, P. Rocke							
Well Identification: EW-3					Weather: Overcast, cool							
Measurement Point Description: TOC -N					Pump Intake: 83.70		Screen: 70-85		Casing Material: PVC or SS			
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume				
83.70	88.460	—	—	—	—	—	—	—				
82.57 (ft-m)		Gallons/Foot			Field Equipment: WQ meter Harbor 4-52			Well Headspace:	PID(ppm)= <u>0</u>			
Well Diameter (in)		0.75	2	4	6	Purge Method: Dedicated pump, GPM sample			FID(ppm)= <u>0</u>			
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (μS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0751		~ 0.5	~	6.67	22.82	45.5	0.855	0.53	-4	~	Clear, no sed.	
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification			
0750	0755	~0.5	71	71	~		83.70	0754	OC-GW-EW-3-20170807			
Notes	Able to only 3 vols and one 1 liter amber. Will let well recharge to collect other one 1 liter amber. Collected 2nd 1 L Amber											
Drum No.:	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system C 1215											

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Page 1 of 1

Project Name: Omega Chemical Superfund Site				Date: 8/7/17								
Project No.: E742				Prepared By: K. Azhar, P. Rocca								
Well Identification: F10-4				Weather: Overcast, cool								
Measurement Point Description: TOC - N				Pump Intake: 85.10		Screen: 71-86		Casing Material: PVC or SS				
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (C x D = E)	D Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E / 2)	G Above Screen Volume (Top screen - DTW) x D	H Screen Volume (Screen length x D)	I ½ Screen Volume				
81.33	87.46	—	—	—	—	—	—	—				
D Well Diameter (in)		Gallons/Foot			Field Equipment: WQ meter: Horiba U-52			Well Headspace:	PID(ppm)=			
		0.75	2	4	6	Purge Method: Dedicated Pump. Gray sample			FID(ppm)=			
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	pH	Temperature (°C)	Turbidity (NTU)	Conductivity ($\frac{mS}{cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0810	—	—	~9.0	81.33	7.34	26.34	27.5	1.20	3.55	272	—	Clear, no sed.
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification			
0810	0815	~9.0	71	>1	—		81.33	0814	OC-GW-EW-4_2017-0807			
Notes												
Drum No.:	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/7/17							
Project No.: E742					Prepared By: K. Azhar, P. Rocke							
Well Identification: EW-5					Weather: Overcast, cool							
Measurement Point Description: TOC -N					Pump Intake: NA	Screen: 70-85	Casing Material: PVC or SS					
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E/2)	G Above Screen Volume (Top screen - DTW) x D	H Screen Volume (Screen length x D)	I ½ Screen Volume				
81.58	87.90	—	—	—	—	—	—	—				
81.46 (HMI) Well Diameter (in)		Gallons/Foot			Field Equipment: WQ Meter: Hori-be 4-52 Purge Method: Dedicated Pump. Grab Sample			Well Headspace:		PID(ppm)= 0 FID(ppm)= -		
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{S}/\text{cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0829	—	—	5	81.58	7.48	22.33	99.3	0.970	3.68	285	—	clear, no silt
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification		
0829 0828	0835	~5	>	>	—	—		81.58	0830	OC-GW-EW-5-20170807		
Notes												
Drum No.:	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Page 1 of 1

Project Name: Omega Chemical Superfund Site					Date: 8/7/17							
Project No.: E742					Prepared By: K. Baker							
Well Identification: PZ-3					Weather: overcast, cool							
Measurement Point Description: TOC -N					Pump Intake:		Screen: 69.8 - 89.8		Casing Material: PVC or SS			
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E/2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume				
DSW	89.40	—	—	—	—	—	—	—				
Well Diameter (in)		Gallons/Foot			Field Equipment:			Well Headspace:	PID(ppm)= 0			
		0.75	2	4	6	Purge Method:	✓		FID(ppm)= -			
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ()	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1255	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15	WELL 15
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification		
Notes	Drum No.: Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

Groundwater Sampling Data Sheet

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Project Name: Omega Chemical Superfund Site					Date: 8/9/17							
Project No.: E742					Prepared By: K. Arthur							
Well Identification: PZ-9					Weather: Clear skies, warm							
Measurement Point Description: TOC -N					Pump Intake: ~		Screen: 79-80		Casing Material: PVC or SS			
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E/2)	Above Screen Volume (Top screen - DTW)xD	Screen Volume (Screen length x D)	½ Screen Volume				
85.80	89.75	3.95	1.3	3.9	0.65	0	4.5	3.25				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ multimeter Ibaraki U-52			Well Headspace:	PID(ppm)= 0.352			
		0.75	2	4	6	Purge Method: 3 vol purge	FID(ppm)=					
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: Poly baster						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (µS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0906	-	1	-	88.32	7.53	21.27	0.35	1.00	8.13	203	-	Very turbid
0915	-	2	-	89.14	7.44	21.43	1000+	0.970	5.34	225	-	as 6
0924	-	3.5	-	Bailed	The well	Dry						
-	-	3.9	-									
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification				
0900	0924	-	~3.5	~90%	84.59	88.88	1347	OL-GW-PZ-9-20170809				
Notes												
Drum No.:	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

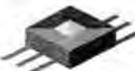


Groundwater Sampling Data Sheet

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Project Name: Omega Chemical Superfund Site					Date: 8/7/17							
Project No.: E742					Prepared By: K. Arber, P. Rocke							
Well Identification: OW-1 A					Weather: Overcast, warm							
Measurement Point Description: TOC -N					Pump Intake:	Screen: 62.5 - 77.5	Casing Material: PVC or SS					
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A-B=C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	1/2 Casing Volume (E/2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	1/2 Screen Volume				
DRY	82.90											
Well Diameter (in)		Gallons/Foot			Field Equipment:			Well Headspace:		PID(ppm)=0.086		
		0.75	2	4	6	Purge Method:				FID(ppm)= -		
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ()	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1332		WEYL IS DRY										
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification				
Notes Drum No.: Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system												

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site				Date: 8/9/17								
Project No.: E742				Prepared By: K. Alba, P. Roche								
Well Identification: OW-1B				Weather: Clear skies, warm								
Measurement Point Description: TOC -N				Pump Intake: 119		Screen: 110-120		Casing Material: PVC or SS				
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (CxD=E)	D Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E/2)	G Above Screen Volume (Top screen - DTW)xD	H Screen Volume (Screen length x D)	I ½ Screen Volume				
92.90	118.0	25.1	32.6	98	14.3	4.6	6.5	3.25				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ meter; Horiba u-52			Well Headspace:	PID(ppm)=1.319			
		0.75	2	4	6	Purge Method: 3 vol Purge	FID(ppm)= -					
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: 2" Reciprocating Pump	2471Hz					
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{S}/\text{cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1008				87.80	PURGING							
1028	-	20	~1.0	101.00	8.25	25.46	48.5	0.704	6.26	-70	-	Clear
1048	-	40	~1.0	107.95	8.33	27.78	44.5	0.675	4.07	-62	-	u
1108	-	60	~1.0	112.40	8.13	29.66	49.0	0.725	3.64	-34	-	u
1128	-	80	~1.0	114.41	7.82	29.68	55.0	0.829	1.36	-29	-	u
1148	-	98	~1.0	116.40	7.67	28.56	106	0.921	3.22	100	-	u
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification			
1008	1100	~1.0	~95	3	~		116.55	1150	OC-GW-OW-1B_20170809			
Notes												
Drum No.:	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point

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Groundwater Sampling Data Sheet

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Project Name: Omega Chemical Superfund Site Project No.: E742 Well Identification: DW-2 Measurement Point Description: TOC -N					Date: 8/7/17 Prepared By: K. Azher, P. Rocka Weather: Overcast, Warm							
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (CxD=E)	Pump Intake: -	Screen: 60-80	Casing Material: PVC or SS						
				Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E/2)	Above Screen Volume (Top screen - DTW)xD	Screen Volume (Screen length x D)	½ Screen Volume				
DRY	79.70	soft bottom	—	—	—	—						
D Well Diameter (in)		Gallons/Foot			Field Equipment:			Well Headspace:	PID(ppm)= 50			
		0.75	2	4	6	Purge Method:	Pump Type:		FID(ppm)= -			
Gallons per foot of casing		0.02	0.16	0.65	1.47							
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ()	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1250	Well 1S	DRY										
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification		
Notes	Drum No.: Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point

Groundwater Sampling Data Sheet

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Project Name: Omega Chemical Superfund Site				Date: 8/9/17								
Project No.: E742				Prepared By: K. Azken, P. Rocke								
Well Identification: SW-3				Weather: Clear skies, cool								
Measurement Point Description: TOC -N				Pump Intake: ~		Screen: 63-83		Casing Material: PVC or SS				
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (CxD=E)	D Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E /2)	G Above Screen Volume (Top screen - DTW) x D	H Screen Volume (Screen length x D)	I ½ Screen Volume				
81.95	82.40	0.45	0.6	1.8	0.3	-	13.0	4.5				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ water: Horiba U-52			Well Headspace:	PID(ppm)=			
		0.75	2	4	6	Purge Method: Poly boiler 3 vol. purge			FID(ppm)=			
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: Poly boiler						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{S/cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
		NOT ENOUGH FT	WATER TO BAIL OUT									
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification			
Notes												
Drum No.:	Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/8/17							
Project No.: E742					Prepared By: C.Arthur							
Well Identification: OW-3B					Weather: Clear skies, cool							
Measurement Point Description: TOC -N					Pump Intake: 120 Screen: 112-122 Casing Material: PVC or SS							
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C) 30.09	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume				
91.91	122.00	91.91	40	120	20	13	6.5	3.25				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ meter: Horiba U-52			Well Headspace:	PID(ppm)= 57.26			
		0.75	2	4.30	6	Purge Method: 3 Vol. Purge	FID(ppm)= -					
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: 2" Grundfos Pumps 272Hz						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{S}/\text{cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0732		START PURGING										
0744	-	20	3.0	96.65	5.80	20.15	16.4	1.02	3.42	273	-	Clear, no odor
0756	-	40	3.0	96.65	6.69	20.51	8.4	0.961	3.24	204	-	22 4
0808	-	60	3.0	96.78	6.96	20.71	5.0	0.956	3.16	190	-	22 4
0812	-	80	3.0	96.88	7.13	21.47	2.8	0.950	9.27	195	-	22 4
0820	-	100	3.0	96.88	7.13	21.39	2.1	0.955	4.11	197	-	22 4
0827	-	120	3.0	96.85	7.12	21.28	1.0	0.954	3.10	203	-	22 4
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification				
0732	0840	3.0	~121	3	-	94.88	0835	DC-GW-OW-3B-20170808				
Notes												
Drum No.: Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system												

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/7/17							
Project No.: E742					Prepared By: K. Dehr, P. Reska							
Well Identification: OW-7					Weather: Overcast, Warm							
Measurement Point Description: TOC -N					Pump Intake: -	Screen: 70.9-90.9	Casing Material: PVC or SS					
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	1/2 Casing Volume (E /2)	Above Screen Volume (Top screen - DTW)xD	Screen Volume (Screen length x D)	1/2 Screen Volume				
024	87.20	-	-	-	-	-	-	-				
Well Diameter (in)		Gallons/Foot			Field Equipment:			Well Headspace:	PID(ppm)=			
		0.75	2	4	6	Purge Method:	f		f	FID(ppm)=		
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:	f					
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ()	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1320	well 1 is dry											
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification		
Notes Drum No.: Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system												

ft-bmp = feet below measuring point

Groundwater Sampling Data Sheet

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Project Name: Omega Chemical Superfund Site					Date: 8/8/12							
Project No.: E742					Prepared By: K. Alvar							
Well Identification: OW-8A					Weather: clear skies cool							
Measurement Point Description: TOC -N					Pump Intake:		Screen: 60.4-80		Casing Material: PVC or SS			
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E/2)	Above Screen Volume (Top screen - DTW)xD	Screen Volume (Screen length x D)	½ Screen Volume				
DRY	79.05	-	-	-	-	-	-	-				
Well Diameter (in)		Gallons/Foot			Field Equipment:			Well Headspace:	PID(ppm)= 0			
		0.75	2	4	6	Purge Method:			FID(ppm)= -			
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type:						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ()	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0903	WELL	IS DRY										
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification		
Notes												
Drum No.: Purge Equipment decontaminated? Yes <input type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system												



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/8/17							
Project No.: E742					Prepared By: C. Azkary, P. Rocka							
Well Identification: OW-8B					Weather: Clear skies, warm							
Measurement Point Description: TOC -N					Pump Intake: 124		Screen: 116-126		Casing Material: PVC or SS			
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (CxD=E)	D Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E/2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume				
95.15	126.10	30.95	40	120	20	13.6	4.5	3.25				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ meter; Hobita 4-SZ			Well Headspace:	PID(ppm)= 0			
		0.75	2	4	6	Purge Method: 3 Vol purge	FID(ppm)= -					
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: 2" Grundfos pump 10 269 Hz						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{S/cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0915				START	PURGING							
0939	-	20	~1.0	95.95	7.25	21.49	5.4	0.941	3.93	178	-	Clear, slight odor
1000	-	40	~1.0	96.02	7.18	21.87	2.8	0.939	3.79	195	-	" "
1021	-	60	~1.0	96.05	7.15	22.15	1.7	0.944	3.19	198	-	Clear
1032	-	80	~1.0	96.06	7.14	22.07	1.3	0.932	3.54	204	-	" "
1049	-	100	~1.0	96.06	6.28	23.37	0.2	0.933	4.97	257	-	" "
1105	-	120	~1.0	96.05	7.03	23.10	0.1	0.923	5.71	219	-	" "
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification				
0915			124	3	-	96.05	1110	OC-GW-OW-8B-20170808K @ 1115				
Notes	Recalibrated WQ meter due to erroneous high readings when it was turned back on after auto shut off.										OC-GW-OW-8B-20170808K @ 1115	
Drum No.:	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point

Groundwater Sampling Data Sheet

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Project Name: Omega Chemical Superfund Site				Date: 8/10/17								
Project No.: E742				Prepared By: K. Azhr, P. Rocka								
Well Identification: OW-9				Weather: overcast, cool								
Measurement Point Description: TOC -N				Pump Intake: 89.5		Screen: 70-90		Casing Material: PVC or SS				
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (CxD=E)	D Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E/2)	G Above Screen Volume (Top screen - DTW) x D	H Screen Volume (Screen length x D)	I ½ Screen Volume				
85.97	89.85	3.88	5	15	2.5	0	13	4.5				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ Meter: Horiba U-52			Well Headspace:	PID(ppm)= 0			
		0.75	2	4	6	Purge Method: 3 vol. purge			FID(ppm)= -			
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: Poly baird 1/2" Gravelloc pump			231 Hz			
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (µS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0641	-	2	-	87.00	6.44	20.46	0.0*	1.08	6.76	263	-	Very turbid
0653	-	4	-	87.35	7.21	20.29	0.0*	1.09	6.14	241	-	" "
0705	-	6	-	88.04	7.46	20.18	0.0*	1.08	5.51	232	-	" "
0729	-	8	-	87.89	7.54	20.33	0.0*	1.28	6.13	235	-	" "
0745	-	10	-	87.80	7.38	20.80	0.0*	1.27	5.37	235	-	" "
0755	-	12	~0.5	88.42	7.44	21.15	0.0*	1.29	7.09	229	-	" "
0803	-	14	~0.6	88.90	7.50	22.38	0.0*	1.32	4.81	211	-	" "
0810	-	15	~0.5	89.00	7.58	22.11	0.0*	1.31	8.40	207	-	" "
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B-(C x .80)		DTW-Sampling Time (ft-bmp)	Sample Time	Sample Identification			
0635	0725	~0.15	16	3	~		88.87	0812	OC-GW-OW-9-20170810			
Notes	Drum No.: Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/9/17							
Project No.: E742					Prepared By: K. Azhar, P. Zuckerman							
Well Identification: OW-10					Weather: Clear sk							
Measurement Point Description: TOC -N					Pump Intake: 88.0-89.0 Screen: 69.5-89.5 Casing Material: PVC or SS							
A	B	C	D	E	Three (3) Casing Volumes (gallons) (E x D = E)	½ Casing Volume (E /2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume			
Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft) (A - B = C)	One (1) Casing Volume (gallons)									
79.20	89.10	9.90	12.9		39	16.45	0	13	6.5			
Well Diameter (in)		Gallons/Foot			Field Equipment: WQmeter: Horiba U-52			Well Headspace:		PID(ppm)=0.180		
		0.75	2	4	6	Purge Method: 3 Vol. purge				FID(ppm)= -		
Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: 2" Grunfos Reg: Hs 227 Hz → 241 Hz						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (µS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0735				START	PURGING							
0755	-	10	~0.5	84.81	6.15	21.96	180	1.29	2.99	198	-	lightly cloudy
0815	-	20	~0.5	87.75	6.96	23.15	0.0*	1.26	4.45	154	-	Very turbid
0824	30	STOPPED PUMPING										
0843	39	RAILED OUT ~0.75 gal.										
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B-(C x .80)	DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification				
0735	0755	0.5	40.20	7	*81.18	80.00	1335	OC-GW-OW-10_W0170803				
Notes	0815 - lowered pump to 89.0' due to decrease in flow; raised pump speed to 241 Hz											
Drum No.:	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point

Groundwater Sampling Data Sheet

 Page 1 of 1

Project Name: Omega Chemical Superfund Site				Date: 8/10/17								
Project No.: E742				Prepared By: C. Archer, P. Rocke								
Well Identification: GW-11				Weather: Clear (50°), warm								
Measurement Point Description: TOC -N				Pump Intake: 99		Screen: 80-100		Casing Material: PVC or SS				
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (C X D = E)	E Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E/2)	G Above Screen Volume (Top screen - DTW) x D	H Screen Volume (Screen length x D)	I ½ Screen Volume				
87.70	98.80	11.1	14.4	43.2	7.2	0	13	6.5				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQmetr, Hobbs U-52			Well Headspace:	PID(ppm) = 0.408			
		0.75	2	4	6	Purge Method: 2 Vol purge			FID(ppm) = -			
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: 2" Grav. Gas Pump: Sto 241 H-8						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{S}/\text{cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1055				START PURGING								
1105	-	5	~0.810	90.35	7.37	25.90	617	1.11	3.69	104	-	cloudy
1115	-	10	~0.810	91.30	7.17	24.61	62.1	0.936	2.79	133	-	lightly cloudy
1120	-	15	~0.810	91.89	6.96	24.28	87.4	0.842	2.71	159	-	" "
1125	-	20	~0.810	92.22	6.93	23.91	74.8	0.963	2.78	162	-	" "
1130	-	25	~0.810	92.45	6.88	24.05	61.9	0.973	2.97	149	-	" "
1140	-	30	~0.810	92.55	6.91	24.04	21.5	0.974	3.04	131	-	clear
1145	-	35	~0.810	92.72	7.01	23.98	19.2	0.977	3.37	133	-	" "
1150	-	40	~0.810	92.72	7.20	23.85	15.8	0.984	3.44	115	-	" "
1155	-	44	~0.810	92.74	7.11	23.41	9.1	0.984	3.38	108	-	" "
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification			
1055					89.96		92.74	1200	OC-GW-GW-11-20170810			
Notes												
Drum No. :	Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system											

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site					Date: 8/8/17							
Project No.: E742					Prepared By: C. Azhr, P. Zuelca							
Well Identification: SW-12					Weather: Clear skies, 70° warm							
Measurement Point Description: TOC -N					Pump Intake: 98		Screen: 80-100		Casing Material: PVC or SS			
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	D One (1) Casing Volume (gallons) (CxD=E)	E Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen - DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume				
91.72	100.0	8.28	10.8	32.4	5.4	-	13.0	6.5				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ meter: Hobita U-52			Well Headspace:	PID(ppm)=0.143			
		0.75	2	4	6	Purge Method: 3 vol. purge			FID(ppm)= -			
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: 2" Grundfos						
Time	Casing/Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{mho/cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1340				Start purging								
1354		18	~0.5	98.86	7.12	26.03	24.8	0.735	12.30	114	-	clear
1400		11		WELL WENT DRY								
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged		Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification		
1340	1400	~0.5	11		1	93.38		91.80	0645	OC.GW-SW-12 - 20170811		
Notes												
Drum No.: Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system												

ft-bmp = feet below measuring point



Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site				Date: 8/10/12								
Project No.: E742				Prepared By: K. Arthur, P. Rocka								
Well Identification: OW-12				Weather: Clear skies, warm								
Measurement Point Description: TOC -N				Pump Intake: 99.0		Screen: 80-100		Casing Material: PVC or SS				
A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A - B = C)	E One (1) Casing Volume (gallons) (CxD=E)	D Three (3) Casing Volumes (gallons) (E x 3)	F ½ Casing Volume (E/2)	G Above Screen Volume (Top screen - DTW) x D	H Screen Volume (Screen length x D)	I ½ Screen Volume				
97.45	100.0	2.55	9.8	28.294	4.8	-	13.0	6.5				
Well Diameter (in)		Gallons/Foot			Field Equipment: WQ meter: Horiba U-52			Well Headspace:	PID(ppm)= 0.679			
		0.75	2	4	6	Purge Method: 3 vol. purge			FID(ppm)= -			
D Gallons per foot of casing		0.02	0.16	0.65	1.47	Pump Type: 2" Roto Pump Groundwater						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ($\mu\text{S}/\text{cm}$)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0841				START PURGING								
0856	-	5	~0.5	95.70	7.40	23.79	77.3	0.743	4.78	189	-	lightly cloudy
0908	-	10	~0.5	98.65	7.21	24.69	55.2	0.753	3.91	72	-	-
0920	-	13	~0.5	WELL WENT DRY								
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Volumes Purged	80% Recovery Water Level Depth B - (C x .80)		DTW - Sampling Time (ft-bmp)	Sample Time	Sample Identification			
0841	0920	0.5	13	> 1	89.92	93.96	91.80	0645	OC-GW-OW-12-20170814			
Notes Drum No.: Purge Equipment decontaminated? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Purge/decon water containerized? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Container type: Drum to treatment system												

ft-bmp = feet below measuring point

Attachment E

**Third Quarter Laboratory Analytical Results and Data
Validation Reports**



Calscience



WORK ORDER NUMBER: 17-07-1408



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: de maximis, inc.

Client Project Name: Omega

Attention: Jaime Dinello
1322 Scott Street
Suite 104
San Diego, CA 92106-2727

Approved for release on 07/31/2017 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Work Order: 17-07-1408

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/21/17. They were assigned to Work Order 17-07-1408.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sample Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order:	17-07-1408
		Project Name:	Omega
		PO Number:	GWTS GAC GL 6308
		Date/Time Received:	07/21/17 12:08
		Number of Containers:	3

Attn: Jaime Dinello

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OC_VGAC_EFF_SP242_072117	17-07-1408-1	07/21/17 10:19	1	Air
OC_VGAC_INT_SP245_072117	17-07-1408-2	07/21/17 10:20	1	Air
OC_VGAC_INF_SP241_072117	17-07-1408-3	07/21/17 10:21	1	Air

Detections Summary

Client: de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Work Order: 17-07-1408
Project Name: Omega
Received: 07/21/17

Attn: Jaime Dinello

Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OC_VGAC_EFF_SP242_072117 (17-07-1408-1)						
2-Butanone	5.1		1.5	ppb (v/v)	EPA TO-15	N/A
Chloroform	4.9		0.50	ppb (v/v)	EPA TO-15	N/A
Dichlorodifluoromethane	0.53		0.50	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	13		0.50	ppb (v/v)	EPA TO-15	N/A
Toluene	0.63		0.50	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	6.0		1.0	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	9.8		1.5	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	43		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INT_SP245_072117 (17-07-1408-2)						
Chloroform	6.4		0.53	ppb (v/v)	EPA TO-15	N/A
Dichlorodifluoromethane	0.66		0.53	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	24		0.53	ppb (v/v)	EPA TO-15	N/A
1,2-Dichloroethane	0.98		0.53	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	13		1.1	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	19		1.6	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	66		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INF_SP241_072117 (17-07-1408-3)						
2-Butanone	1.6		1.5	ppb (v/v)	EPA TO-15	N/A
Chloroform	4.5		0.50	ppb (v/v)	EPA TO-15	N/A
Dichlorodifluoromethane	0.58		0.50	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	11		0.50	ppb (v/v)	EPA TO-15	N/A
1,2-Dichloroethane	1.5		0.50	ppb (v/v)	EPA TO-15	N/A
o-Xylene	1.8		0.50	ppb (v/v)	EPA TO-15	N/A
Tetrachloroethene	80		0.50	ppb (v/v)	EPA TO-15	N/A
Toluene	17		0.50	ppb (v/v)	EPA TO-15	N/A
Trichloroethene	8.6		0.50	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	3.6		1.0	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	18		1.5	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	150		10	ppb (v/v)	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Detections Summary

Client: de maximis, inc.
 1322 Scott Street, Suite 104
 San Diego, CA 92106-2727

Work Order: 17-07-1408
 Project Name: Omega
 Received: 07/21/17

Attn: Jaime Dinello

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
OC_VGAC_EFF_SP242_072117 (17-07-1408-1)						
2-Butanone	15		4.4	ug/m3	EPA TO-15	N/A
Chloroform	24		2.4	ug/m3	EPA TO-15	N/A
Dichlorodifluoromethane	2.6		2.5	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	51		2.0	ug/m3	EPA TO-15	N/A
Toluene	2.4		1.9	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	34		5.6	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	75		11	ug/m3	EPA TO-15	N/A
OC_VGAC_INT_SP245_072117 (17-07-1408-2)						
Chloroform	31		2.6	ug/m3	EPA TO-15	N/A
Dichlorodifluoromethane	3.3		2.6	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	94		2.1	ug/m3	EPA TO-15	N/A
1,2-Dichloroethane	4.0		2.1	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	71		6.0	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	150		12	ug/m3	EPA TO-15	N/A
OC_VGAC_INF_SP241_072117 (17-07-1408-3)						
2-Butanone	4.7		4.4	ug/m3	EPA TO-15	N/A
Chloroform	22		2.4	ug/m3	EPA TO-15	N/A
Dichlorodifluoromethane	2.9		2.5	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	43		2.0	ug/m3	EPA TO-15	N/A
1,2-Dichloroethane	6.2		2.0	ug/m3	EPA TO-15	N/A
o-Xylene	7.6		2.2	ug/m3	EPA TO-15	N/A
Tetrachloroethene	540		3.4	ug/m3	EPA TO-15	N/A
Toluene	63		1.9	ug/m3	EPA TO-15	N/A
Trichloroethene	46		2.7	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	20		5.6	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	140		11	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Date Received: 07/21/17
Work Order: 17-07-1408
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Omega

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_072117	17-07-1408-1-A	07/21/17 10:19	Air	GC/MS HH	N/A	07/24/17 17:57	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>			<u>Qualifiers</u>
Benzene		ND	0.50		1.00		
2-Butanone		5.1	1.5		1.00		
Carbon Disulfide		ND	2.0		1.00		
Carbon Tetrachloride		ND	0.50		1.00		
Chloroform		4.9	0.50		1.00		
Dichlorodifluoromethane		0.53	0.50		1.00		
1,1-Dichloroethane		ND	0.50		1.00		
1,1-Dichloroethene		13	0.50		1.00		
1,2-Dichloroethane		ND	0.50		1.00		
1,4-Dioxane		ND	10		1.00		
Hexane		ND	2.0		1.00		
Methylene Chloride		ND	5.0		1.00		
o-Xylene		ND	0.50		1.00		
Tetrachloroethene		ND	0.50		1.00		
Toluene		0.63	0.50		1.00		
Trichloroethene		ND	0.50		1.00		
Trichlorofluoromethane		6.0	1.0		1.00		
1,1,2-Trichloro-1,2,2-Trifluoroethane		9.8	1.5		1.00		
1,1,1-Trichloroethane		ND	0.50		1.00		
1,1,2-Trichloroethane		ND	0.50		1.00		
Vinyl Chloride		ND	0.50		1.00		
Isopropanol		ND	5.0		1.00		
Total Volatile Organic Compounds		43	10		1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>		<u>Qualifiers</u>		
1,4-Bromofluorobenzene		107	57-129				
1,2-Dichloroethane-d4		93	47-137				
Toluene-d8		90	78-156				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

de maximis, inc.
 1322 Scott Street, Suite 104
 San Diego, CA 92106-2727

Date Received: 07/21/17
 Work Order: 17-07-1408
 Preparation: N/A
 Method: EPA TO-15
 Units: ppb (v/v)

Project: Omega

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_072117	17-07-1408-2-A	07/21/17 10:20	Air	GC/MS HH	N/A	07/24/17 18:53	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>			<u>Qualifiers</u>
Benzene		ND	0.53		1.06		
2-Butanone		ND	1.6		1.06		
Carbon Disulfide		ND	2.1		1.06		
Carbon Tetrachloride		ND	0.53		1.06		
Chloroform		6.4	0.53		1.06		
Dichlorodifluoromethane		0.66	0.53		1.06		
1,1-Dichloroethane		ND	0.53		1.06		
1,1-Dichloroethene		24	0.53		1.06		
1,2-Dichloroethane		0.98	0.53		1.06		
1,4-Dioxane		ND	11		1.06		
Hexane		ND	2.1		1.06		
Methylene Chloride		ND	5.3		1.06		
o-Xylene		ND	0.53		1.06		
Tetrachloroethene		ND	0.53		1.06		
Toluene		ND	0.53		1.06		
Trichloroethene		ND	0.53		1.06		
Trichlorofluoromethane		13	1.1		1.06		
1,1,2-Trichloro-1,2,2-Trifluoroethane		19	1.6		1.06		
1,1,1-Trichloroethane		ND	0.53		1.06		
1,1,2-Trichloroethane		ND	0.53		1.06		
Vinyl Chloride		ND	0.53		1.06		
Isopropanol		ND	5.3		1.06		
Total Volatile Organic Compounds		66	10		1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>		<u>Qualifiers</u>		
1,4-Bromofluorobenzene		108	57-129				
1,2-Dichloroethane-d4		83	47-137				
Toluene-d8		86	78-156				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Date Received: 07/21/17
Work Order: 17-07-1408
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Omega

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_072117	17-07-1408-3-A	07/21/17 10:21	Air	GC/MS HH	N/A	07/25/17 01:00	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Benzene		ND	0.50	1.00			
2-Butanone		1.6	1.5	1.00			
Carbon Disulfide		ND	2.0	1.00			
Carbon Tetrachloride		ND	0.50	1.00			
Chloroform		4.5	0.50	1.00			
Dichlorodifluoromethane		0.58	0.50	1.00			
1,1-Dichloroethane		ND	0.50	1.00			
1,1-Dichloroethene		11	0.50	1.00			
1,2-Dichloroethane		1.5	0.50	1.00			
1,4-Dioxane		ND	10	1.00			
Hexane		ND	2.0	1.00			
Methylene Chloride		ND	5.0	1.00			
o-Xylene		1.8	0.50	1.00			
Tetrachloroethene		80	0.50	1.00			
Toluene		17	0.50	1.00			
Trichloroethene		8.6	0.50	1.00			
Trichlorofluoromethane		3.6	1.0	1.00			
1,1,2-Trichloro-1,2,2-Trifluoroethane		18	1.5	1.00			
1,1,1-Trichloroethane		ND	0.50	1.00			
1,1,2-Trichloroethane		ND	0.50	1.00			
Vinyl Chloride		ND	0.50	1.00			
Isopropanol		ND	5.0	1.00			
Total Volatile Organic Compounds		150	10	1.00			
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>			
1,4-Bromofluorobenzene		107	57-129				
1,2-Dichloroethane-d4		93	47-137				
Toluene-d8		92	78-156				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Date Received: 07/21/17
Work Order: 17-07-1408
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Omega

Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-608-260	N/A	Air	GC/MS HH	N/A	07/24/17 17:03	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>			<u>Qualifiers</u>
Benzene		ND	0.50		1.00		
2-Butanone		ND	1.5		1.00		
Carbon Disulfide		ND	2.0		1.00		
Carbon Tetrachloride		ND	0.50		1.00		
Chloroform		ND	0.50		1.00		
Dichlorodifluoromethane		ND	0.50		1.00		
1,1-Dichloroethane		ND	0.50		1.00		
1,1-Dichloroethene		ND	0.50		1.00		
1,2-Dichloroethane		ND	0.50		1.00		
1,4-Dioxane		ND	10		1.00		
Hexane		ND	2.0		1.00		
Methylene Chloride		ND	5.0		1.00		
o-Xylene		ND	0.50		1.00		
Tetrachloroethene		ND	0.50		1.00		
Toluene		ND	0.50		1.00		
Trichloroethene		ND	0.50		1.00		
Trichlorofluoromethane		ND	1.0		1.00		
1,1,2-Trichloro-1,2,2-Trifluoroethane		ND	1.5		1.00		
1,1,1-Trichloroethane		ND	0.50		1.00		
1,1,2-Trichloroethane		ND	0.50		1.00		
Vinyl Chloride		ND	0.50		1.00		
Isopropanol		ND	5.0		1.00		
Total Volatile Organic Compounds		ND	10		1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>		<u>Qualifiers</u>		
1,4-Bromofluorobenzene		97	57-129				
1,2-Dichloroethane-d4		95	47-137				
Toluene-d8		96	78-156				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

de maximis, inc.
 1322 Scott Street, Suite 104
 San Diego, CA 92106-2727

Date Received: 07/21/17
 Work Order: 17-07-1408
 Preparation: N/A
 Method: EPA TO-15
 Units: ug/m3

Project: Omega

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_072117	17-07-1408-1-A	07/21/17 10:19	Air	GC/MS HH	N/A	07/24/17 17:57	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>			<u>Qualifiers</u>
Benzene		ND	1.6		1.00		
2-Butanone		15	4.4		1.00		
Carbon Disulfide		ND	6.2		1.00		
Carbon Tetrachloride		ND	3.1		1.00		
Chloroform		24	2.4		1.00		
Dichlorodifluoromethane		2.6	2.5		1.00		
1,1-Dichloroethane		ND	2.0		1.00		
1,1-Dichloroethene		51	2.0		1.00		
1,2-Dichloroethane		ND	2.0		1.00		
1,4-Dioxane		ND	36		1.00		
Hexane		ND	7.0		1.00		
Methylene Chloride		ND	17		1.00		
o-Xylene		ND	2.2		1.00		
Tetrachloroethene		ND	3.4		1.00		
Toluene		2.4	1.9		1.00		
Trichloroethene		ND	2.7		1.00		
Trichlorofluoromethane		34	5.6		1.00		
1,1,2-Trichloro-1,2,2-Trifluoroethane		75	11		1.00		
1,1,1-Trichloroethane		ND	2.7		1.00		
1,1,2-Trichloroethane		ND	2.7		1.00		
Vinyl Chloride		ND	1.3		1.00		
Isopropanol		ND	12		1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>			<u>Qualifiers</u>
1,4-Bromofluorobenzene		107		57-129			
1,2-Dichloroethane-d4		93		47-137			
Toluene-d8		90		78-156			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Date Received: 07/21/17
Work Order: 17-07-1408
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: Omega

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_072117	17-07-1408-2-A	07/21/17 10:20	Air	GC/MS HH	N/A	07/24/17 18:53	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>			<u>Qualifiers</u>
Benzene		ND	1.7		1.06		
2-Butanone		ND	4.7		1.06		
Carbon Disulfide		ND	6.6		1.06		
Carbon Tetrachloride		ND	3.3		1.06		
Chloroform		31	2.6		1.06		
Dichlorodifluoromethane		3.3	2.6		1.06		
1,1-Dichloroethane		ND	2.1		1.06		
1,1-Dichloroethene		94	2.1		1.06		
1,2-Dichloroethane		4.0	2.1		1.06		
1,4-Dioxane		ND	38		1.06		
Hexane		ND	7.5		1.06		
Methylene Chloride		ND	18		1.06		
o-Xylene		ND	2.3		1.06		
Tetrachloroethene		ND	3.6		1.06		
Toluene		ND	2.0		1.06		
Trichloroethene		ND	2.8		1.06		
Trichlorofluoromethane		71	6.0		1.06		
1,1,2-Trichloro-1,2,2-Trifluoroethane		150	12		1.06		
1,1,1-Trichloroethane		ND	2.9		1.06		
1,1,2-Trichloroethane		ND	2.9		1.06		
Vinyl Chloride		ND	1.4		1.06		
Isopropanol		ND	13		1.06		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>			<u>Qualifiers</u>
1,4-Bromofluorobenzene		108		57-129			
1,2-Dichloroethane-d4		83		47-137			
Toluene-d8		86		78-156			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Date Received: 07/21/17
Work Order: 17-07-1408
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: Omega

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_072117	17-07-1408-3-A	07/21/17 10:21	Air	GC/MS HH	N/A	07/25/17 01:00	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>			<u>Qualifiers</u>
Benzene		ND	1.6		1.00		
2-Butanone		4.7	4.4		1.00		
Carbon Disulfide		ND	6.2		1.00		
Carbon Tetrachloride		ND	3.1		1.00		
Chloroform		22	2.4		1.00		
Dichlorodifluoromethane		2.9	2.5		1.00		
1,1-Dichloroethane		ND	2.0		1.00		
1,1-Dichloroethene		43	2.0		1.00		
1,2-Dichloroethane		6.2	2.0		1.00		
1,4-Dioxane		ND	36		1.00		
Hexane		ND	7.0		1.00		
Methylene Chloride		ND	17		1.00		
o-Xylene		7.6	2.2		1.00		
Tetrachloroethene		540	3.4		1.00		
Toluene		63	1.9		1.00		
Trichloroethene		46	2.7		1.00		
Trichlorofluoromethane		20	5.6		1.00		
1,1,2-Trichloro-1,2,2-Trifluoroethane		140	11		1.00		
1,1,1-Trichloroethane		ND	2.7		1.00		
1,1,2-Trichloroethane		ND	2.7		1.00		
Vinyl Chloride		ND	1.3		1.00		
Isopropanol		ND	12		1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>			<u>Qualifiers</u>
1,4-Bromofluorobenzene		107		57-129			
1,2-Dichloroethane-d4		93		47-137			
Toluene-d8		92		78-156			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

de maximis, inc.
 1322 Scott Street, Suite 104
 San Diego, CA 92106-2727

Date Received: 07/21/17
 Work Order: 17-07-1408
 Preparation: N/A
 Method: EPA TO-15
 Units: ug/m3

Project: Omega

Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-608-260	N/A	Air	GC/MS HH	N/A	07/24/17 17:03	170724L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>			<u>Qualifiers</u>
Benzene		ND	1.6		1.00		
2-Butanone		ND	4.4		1.00		
Carbon Disulfide		ND	6.2		1.00		
Carbon Tetrachloride		ND	3.1		1.00		
Chloroform		ND	2.4		1.00		
Dichlorodifluoromethane		ND	2.5		1.00		
1,1-Dichloroethane		ND	2.0		1.00		
1,1-Dichloroethene		ND	2.0		1.00		
1,2-Dichloroethane		ND	2.0		1.00		
1,4-Dioxane		ND	36		1.00		
Hexane		ND	7.0		1.00		
Methylene Chloride		ND	17		1.00		
o-Xylene		ND	2.2		1.00		
Tetrachloroethene		ND	3.4		1.00		
Toluene		ND	1.9		1.00		
Trichloroethene		ND	2.7		1.00		
Trichlorofluoromethane		ND	5.6		1.00		
1,1,2-Trichloro-1,2,2-Trifluoroethane		ND	11		1.00		
1,1,1-Trichloroethane		ND	2.7		1.00		
1,1,2-Trichloroethane		ND	2.7		1.00		
Vinyl Chloride		ND	1.3		1.00		
Isopropanol		ND	12		1.00		
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>			<u>Qualifiers</u>
1,4-Bromofluorobenzene		97		57-129			
1,2-Dichloroethane-d4		95		47-137			
Toluene-d8		96		78-156			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Quality Control - LCS/LCSD

de maximis, inc. Date Received: 07/21/17
 1322 Scott Street, Suite 104 Work Order: 17-07-1408
 San Diego, CA 92106-2727 Preparation: N/A
 Method: EPA TO-15
 Project: Omega Page 1 of 1

Quality Control Sample ID	Type	Matrix		Instrument		Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-15-608-260	LCS	Air		GC/MS HH		N/A	07/24/17 14:18	170724L02		
099-15-608-260	LCSD	Air		GC/MS HH		N/A	07/24/17 15:09	170724L02		
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	77.96	98	78.30	98	60-156	44-172	0	0-40	
2-Butanone	73.73	68.53	93	67.81	92	50-150	33-167	1	0-35	
Carbon Disulfide	77.85	77.74	100	76.71	99	50-150	33-167	1	0-35	
Carbon Tetrachloride	157.3	158.2	101	156.5	100	64-154	49-169	1	0-32	
Chloroform	122.1	116.4	95	113.9	93	50-150	33-167	2	0-35	
Dichlorodifluoromethane	123.6	120.5	97	117.6	95	50-150	33-167	2	0-35	
1,1-Dichloroethane	101.2	95.94	95	94.79	94	50-150	33-167	1	0-35	
1,1-Dichloroethene	99.12	106.6	108	103.8	105	50-150	33-167	3	0-35	
1,2-Dichloroethane	101.2	94.95	94	93.11	92	69-153	55-167	2	0-35	
1,4-Dioxane	90.09	84.98	94	85.28	95	50-150	33-167	0	0-35	
Hexane	88.12	86.24	98	85.33	97	50-150	33-167	1	0-35	
Methylene Chloride	86.84	89.90	104	88.88	102	50-150	33-167	1	0-35	
o-Xylene	108.6	105.1	97	104.3	96	52-148	36-164	1	0-38	
Tetrachloroethene	169.6	169.5	100	168.9	100	56-152	40-168	0	0-40	
Toluene	94.21	93.34	99	93.08	99	56-146	41-161	0	0-43	
Trichloroethene	134.3	135.6	101	134.2	100	63-159	47-175	1	0-34	
Trichlorofluoromethane	140.5	140.9	100	138.8	99	50-150	33-167	1	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	187.8	98	185.4	97	50-150	33-167	1	0-35	
1,1,1-Trichloroethane	136.4	135.0	99	132.9	97	50-150	33-167	2	0-35	
1,1,2-Trichloroethane	136.4	132.6	97	132.1	97	65-149	51-163	0	0-37	
Vinyl Chloride	63.91	67.10	105	65.31	102	45-177	23-199	3	0-36	
Isopropanol	61.45	60.95	99	60.82	99	50-150	33-167	0	0-35	

Total number of LCS compounds: 22

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Summa Canister Vacuum Summary

Work Order: 17-07-1408

Page 1 of 1

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
OC_VGAC_EFF_SP242_072117	-29.50 in Hg	-2.00 in Hg	LC683	Summa Canister 1L
OC_VGAC_INT_SP245_072117	-29.50 in Hg	-4.20 in Hg	LC1245	Summa Canister 1L
OC_VGAC_INF_SP241_072117	-29.50 in Hg	-4.80 in Hg	LC481	Summa Canister 1L

Sample Analysis Summary Report

Work Order: 17-07-1408

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA TO-15	N/A	1087	GC/MS HH	2

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

AIR CHAIN OF CUSTODY RECORD

DATE: 7/21/17
 PAGE: 1 OF 1

LABORATORY CLIENT: de maximis				CLIENT PROJECT NAME / NUMBER: Omega - GWTS Monthly GAC				P.O. NO.:					
ADDRESS: 1322 Scott St., Suite 104				PROJECT ADDRESS: 12520 Whittier Blvd.				LAB CONTACT OR QUOTE NO.:					
CITY: San Diego		STATE: CA	ZIP: 92106	CITY: Whittier		STATE: CA	ZIP: 90602	LAB USE ONLY: 17-07-1408					
TEL: (562) 756-8149		EMAIL: jdinello@demaximis.com		PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com									
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS				SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar <i>ka</i>				REQUESTED ANALYSES					
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)													
SPEDD													
SPECIAL INSTRUCTIONS:													
LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info	Start Sampling Information			Stop Sampling Information			TO-15 (TAL 2.3)		
1	OC_VGAC_EFF_SP242_072117	SP-EFF-GAC	Vapor	LC683	1L	A461	7/21/17	1014	-30	7/21/17	1019	-5	X
2	OC_VGAC_INT_SP245_072117	SP-MID-GAC	Vapor	LC1245	1L	A84	7/21/17	1015	-30	7/21/17	1020	-5	X
3	OC_VGAC_INF_SP241_072117	SP-INF-GAC	Vapor	LC481	1L	A288	7/21/17	1016	-30	7/21/17	1021	-5	X
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
Relinquished by: (Signature) <i>ka</i>				Received by: (Signature) <i>Trent</i>				Date: 7/21/17 Time: 1208					
Relinquished by: (Signature)				Received by: (Signature)				Date: 7/21/17 Time: 1208					
Relinquished by: (Signature)				Received by: (Signature)				Date: Time:					

SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: DeMAXIMIS

DATE: 07 / 21 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): _____ °C (w/ CF): _____ °C; Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____)
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
 Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: 826

CUSTODY SEAL:

Cooler	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input type="checkbox"/> Not Present	<input checked="" type="checkbox"/> N/A	Checked by: 826
Sample(s)	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: 1053

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOAh VOAna₂ 100PJ 100Pjna₂ 125AGB 125AGBh 125AGBp 125PB 125PBznna 250AGB 250CGB 250CGBs 250PB 250PBn 500AGB 500AGJ 500AGJs 500PB 1AGB 1AGBna₂ 1AGBs 1PB 1PBna _____ _____ _____ _____Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (_____) EnCores® (_____) TerraCores® (_____) _____Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (_____) : _____ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄,s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znna = Zn (CH₃COO)₂ + NaOH

Labeled/Checked by: 1053

Reviewed by: 826

8/15/2017
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - GWTS Monthly GAC
Project #:
Workorder #: 1708103

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 8/7/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis

Project Manager

A Eurofins Lancaster Laboratories Company

WORK ORDER #: 1708103

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	BILL TO:	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	P.O. #	
FAX:	949.679.9078	PROJECT #	Omega - GWTS Monthly GAC
DATE RECEIVED:	08/07/2017	CONTACT:	Rachel Selenis
DATE COMPLETED:	08/15/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	OC_VGAC_EFF_SP242_080417	TO-15	2 "Hg	14.8 psi
02A	OC_VGAC_INT_SP245_080417	TO-15	2 "Hg	14.7 psi
03A	OC_VGAC_INF_SP241_080417	TO-15	2.8 "Hg	15.1 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY:

DATE: 08/15/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1708103**

Three 1 Liter Summa Canister samples were received on August 07, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A time and date were not provided by the field sampler.

Analytical Notes

A single point calibration for TNMOC referenced to Heptane was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds. Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_VGAC_EFF_SP242_080417

Lab ID#: 1708103-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	5.9	6.0	33
Freon 113	1.1	8.7	8.2	67
1,1-Dichloroethene	1.1	11	4.3	43
Acetone	11	20	26	47
2-Butanone (Methyl Ethyl Ketone)	4.3	6.0	13	18
Chloroform	1.1	4.9	5.2	24
m,p-Xylene	1.1	1.1	4.7	4.9
Styrene	1.1	1.2	4.6	5.1
TNMOC ref. to Heptane (MW=100)	22	130	88	530

Client Sample ID: OC_VGAC_INT_SP245_080417

Lab ID#: 1708103-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	8.4	6.0	47
Freon 113	1.1	19	8.2	140
1,1-Dichloroethene	1.1	23	4.2	91
Acetone	11	12	25	29
Hexane	1.1	6.4	3.8	22
Chloroform	1.1	6.9	5.2	34
Benzene	1.1	12	3.4	39
1,2-Dichloroethane	1.1	1.2	4.3	4.7
Ethyl Benzene	1.1	1.4	4.6	6.3
TNMOC ref. to Heptane (MW=100)	21	450	88	1800

Client Sample ID: OC_VGAC_INF_SP241_080417

Lab ID#: 1708103-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	2.5	6.3	14
Freon 113	1.1	14	8.6	110
1,1-Dichloroethene	1.1	7.4	4.4	29
Chloroform	1.1	3.5	5.5	17

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: OC_VGAC_INF_SP241_080417

Lab ID#: 1708103-03A

1,2-Dichloroethane	1.1	1.4	4.5	5.5
Trichloroethene	1.1	5.2	6.0	28
Toluene	1.1	1.5	4.2	5.8
Tetrachloroethene	1.1	58	7.6	390
m,p-Xylene	1.1	1.6	4.9	6.8
Styrene	1.1	1.1	4.8	4.8
TNMOC ref. to Heptane (MW=100)	22	190	92	780



Air Toxics

Client Sample ID: OC_VGAC_EFF_SP242_080417

Lab ID#: 1708103-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080907	Date of Collection:	8/4/17 10:19:00 AM	
Dil. Factor:	2.15	Date of Analysis:	8/9/17 03:54 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Freon 11	1.1	5.9	6.0	33
Freon 113	1.1	8.7	8.2	67
1,1-Dichloroethene	1.1	11	4.3	43
Acetone	11	20	26	47
2-Propanol	4.3	Not Detected	10	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Methyl tert-butyl ether	4.3	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	6.0	13	18
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Chloroform	1.1	4.9	5.2	24
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	Not Detected	7.3	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.2	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
m,p-Xylene	1.1	1.1	4.7	4.9
o-Xylene	1.1	Not Detected	4.7	Not Detected



Air Toxics

Client Sample ID: OC_VGAC_EFF_SP242_080417

Lab ID#: 1708103-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080907	Date of Collection:	8/4/17 10:19:00 AM	
Dil. Factor:	2.15	Date of Analysis:	8/9/17 03:54 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	1.2	4.6	5.1
Bromoform	1.1	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.4	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
1,1-Difluoroethane	4.3	Not Detected	12	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
TNMOC ref. to Heptane (MW=100)	22	130	88	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: OC_VGAC_INT_SP245_080417

Lab ID#: 1708103-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080908	Date of Collection:	8/4/17 10:20:00 AM	
Dil. Factor:	2.14	Date of Analysis:	8/9/17 04:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Freon 11	1.1	8.4	6.0	47
Freon 113	1.1	19	8.2	140
1,1-Dichloroethene	1.1	23	4.2	91
Acetone	11	12	25	29
2-Propanol	4.3	Not Detected	10	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Methyl tert-butyl ether	4.3	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Hexane	1.1	6.4	3.8	22
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Chloroform	1.1	6.9	5.2	34
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Benzene	1.1	12	3.4	39
1,2-Dichloroethane	1.1	1.2	4.3	4.7
Trichloroethene	1.1	Not Detected	5.8	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	1.4	4.6	6.3
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected



Air Toxics

Client Sample ID: OC_VGAC_INT_SP245_080417

Lab ID#: 1708103-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080908	Date of Collection:	8/4/17 10:20:00 AM	
Dil. Factor:	2.14	Date of Analysis:	8/9/17 04:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.6	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
1,1-Difluoroethane	4.3	Not Detected	12	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
TNMOC ref. to Heptane (MW=100)	21	450	88	1800

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: OC_VGAC_INF_SP241_080417

Lab ID#: 1708103-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080909	Date of Collection: 8/4/17 10:21:00 AM		
Dil. Factor:	2.24	Date of Analysis: 8/9/17 04:46 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	2.5	6.3	14
Freon 113	1.1	14	8.6	110
1,1-Dichloroethene	1.1	7.4	4.4	29
Acetone	11	Not Detected	27	Not Detected
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	3.5	5.5	17
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	1.4	4.5	5.5
Trichloroethene	1.1	5.2	6.0	28
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	1.5	4.2	5.8
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	58	7.6	390
2-Hexanone	4.5	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	1.6	4.9	6.8
o-Xylene	1.1	Not Detected	4.9	Not Detected



Air Toxics

Client Sample ID: OC_VGAC_INF_SP241_080417

Lab ID#: 1708103-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080909	Date of Collection:	8/4/17 10:21:00 AM	
Dil. Factor:	2.24	Date of Analysis:	8/9/17 04:46 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	1.1	4.8	4.8
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	22	190	92	780

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1708103-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080906a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 8/9/17 11:23 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1708103-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080906a	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 8/9/17 11:23 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1708103-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/9/17 09:34 AM

Compound	%Recovery
Freon 12	86
Freon 114	95
Chloromethane	87
Vinyl Chloride	91
Bromomethane	97
Chloroethane	91
Freon 11	86
Freon 113	94
1,1-Dichloroethene	89
Acetone	82
2-Propanol	82
Carbon Disulfide	86
3-Chloropropene	89
Methylene Chloride	89
Methyl tert-butyl ether	79
trans-1,2-Dichloroethene	104
Hexane	84
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	84
Chloroform	90
1,1,1-Trichloroethane	88
Carbon Tetrachloride	92
Benzene	99
1,2-Dichloroethane	90
Trichloroethene	98
1,2-Dichloropropane	100
1,4-Dioxane	96
Bromodichloromethane	99
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	90
Toluene	100
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	102
Tetrachloroethene	100
2-Hexanone	96
Dibromochloromethane	99
1,2-Dibromoethane (EDB)	99
Chlorobenzene	98
Ethyl Benzene	98
m,p-Xylene	98
o-Xylene	96



Air Toxics

Client Sample ID: CCV

Lab ID#: 1708103-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080902	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/9/17 09:34 AM

Compound	%Recovery
Styrene	109
Bromoform	101
1,1,2,2-Tetrachloroethane	100
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	103
Hexachlorobutadiene	107
1,1-Difluoroethane	88
Vinyl Acetate	91
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1708103-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080903	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/9/17 09:57 AM
Compound	%Recovery	Method	Limits
Freon 12	94	70-130	
Freon 114	106	70-130	
Chloromethane	91	70-130	
Vinyl Chloride	99	70-130	
Bromomethane	100	70-130	
Chloroethane	96	70-130	
Freon 11	94	70-130	
Freon 113	98	70-130	
1,1-Dichloroethene	93	70-130	
Acetone	87	70-130	
2-Propanol	89	70-130	
Carbon Disulfide	80	70-130	
3-Chloropropene	87	70-130	
Methylene Chloride	92	70-130	
Methyl tert-butyl ether	83	70-130	
trans-1,2-Dichloroethene	96	70-130	
Hexane	91	70-130	
1,1-Dichloroethane	96	70-130	
2-Butanone (Methyl Ethyl Ketone)	94	70-130	
cis-1,2-Dichloroethene	99	70-130	
Chloroform	96	70-130	
1,1,1-Trichloroethane	92	70-130	
Carbon Tetrachloride	96	70-130	
Benzene	106	70-130	
1,2-Dichloroethane	95	70-130	
Trichloroethene	104	70-130	
1,2-Dichloropropane	107	70-130	
1,4-Dioxane	102	70-130	
Bromodichloromethane	107	70-130	
cis-1,3-Dichloropropene	100	70-130	
4-Methyl-2-pentanone	92	70-130	
Toluene	106	70-130	
trans-1,3-Dichloropropene	97	70-130	
1,1,2-Trichloroethane	108	70-130	
Tetrachloroethene	109	70-130	
2-Hexanone	102	70-130	
Dibromochloromethane	107	70-130	
1,2-Dibromoethane (EDB)	106	70-130	
Chlorobenzene	106	70-130	
Ethyl Benzene	104	70-130	
m,p-Xylene	104	70-130	
o-Xylene	104	70-130	



Air Toxics

Client Sample ID: LCS

Lab ID#: 1708103-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080903	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/9/17 09:57 AM
<hr/>			
Compound	%Recovery	Method	Limits
Styrene	113	70-130	
Bromoform	112	70-130	
1,1,2,2-Tetrachloroethane	106	70-130	
4-Ethyltoluene	108	70-130	
1,3,5-Trimethylbenzene	108	70-130	
1,2,4-Trimethylbenzene	102	70-130	
1,3-Dichlorobenzene	109	70-130	
1,4-Dichlorobenzene	109	70-130	
alpha-Chlorotoluene	106	70-130	
1,2-Dichlorobenzene	109	70-130	
1,2,4-Trichlorobenzene	112	70-130	
Hexachlorobutadiene	113	70-130	
1,1-Difluoroethane	Not Spiked		
Vinyl Acetate	97	70-130	
TNMOC ref. to Heptane (MW=100)	Not Spiked		

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	Limits
Toluene-d8	101	70-130	
1,2-Dichloroethane-d4	83	70-130	
4-Bromofluorobenzene	102	70-130	



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1708103-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080904	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/9/17 10:20 AM
Compound	%Recovery	Method	Limits
Freon 12	93	70-130	
Freon 114	105	70-130	
Chloromethane	90	70-130	
Vinyl Chloride	98	70-130	
Bromomethane	100	70-130	
Chloroethane	96	70-130	
Freon 11	94	70-130	
Freon 113	98	70-130	
1,1-Dichloroethene	94	70-130	
Acetone	86	70-130	
2-Propanol	88	70-130	
Carbon Disulfide	80	70-130	
3-Chloropropene	88	70-130	
Methylene Chloride	90	70-130	
Methyl tert-butyl ether	83	70-130	
trans-1,2-Dichloroethene	94	70-130	
Hexane	91	70-130	
1,1-Dichloroethane	95	70-130	
2-Butanone (Methyl Ethyl Ketone)	92	70-130	
cis-1,2-Dichloroethene	100	70-130	
Chloroform	95	70-130	
1,1,1-Trichloroethane	92	70-130	
Carbon Tetrachloride	97	70-130	
Benzene	105	70-130	
1,2-Dichloroethane	94	70-130	
Trichloroethene	105	70-130	
1,2-Dichloropropane	106	70-130	
1,4-Dioxane	102	70-130	
Bromodichloromethane	107	70-130	
cis-1,3-Dichloropropene	99	70-130	
4-Methyl-2-pentanone	92	70-130	
Toluene	107	70-130	
trans-1,3-Dichloropropene	96	70-130	
1,1,2-Trichloroethane	107	70-130	
Tetrachloroethene	107	70-130	
2-Hexanone	101	70-130	
Dibromochloromethane	107	70-130	
1,2-Dibromoethane (EDB)	105	70-130	
Chlorobenzene	104	70-130	
Ethyl Benzene	103	70-130	
m,p-Xylene	103	70-130	
o-Xylene	102	70-130	



Air Toxics

Client Sample ID: LCSD

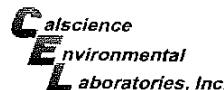
Lab ID#: 1708103-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3080904	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/9/17 10:20 AM
Compound	%Recovery	Method	Limits
Styrene	113	70-130	
Bromoform	112	70-130	
1,1,2,2-Tetrachloroethane	104	70-130	
4-Ethyltoluene	106	70-130	
1,3,5-Trimethylbenzene	107	70-130	
1,2,4-Trimethylbenzene	101	70-130	
1,3-Dichlorobenzene	108	70-130	
1,4-Dichlorobenzene	108	70-130	
alpha-Chlorotoluene	105	70-130	
1,2-Dichlorobenzene	108	70-130	
1,2,4-Trichlorobenzene	113	70-130	
Hexachlorobutadiene	113	70-130	
1,1-Difluoroethane	Not Spiked		
Vinyl Acetate	98	70-130	
TNMOC ref. to Heptane (MW=100)	Not Spiked		

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	Limits
Toluene-d8	102	70-130	
1,2-Dichloroethane-d4	84	70-130	
4-Bromofluorobenzene	102	70-130	



7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 08/04/17
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis				CLIENT PROJECT NAME / NUMBER: Omega - GWTS Monthly GAC				P.O. NO.:					
ADDRESS: 1322 Scott St., Suite 104				PROJECT ADDRESS: 12520 Whittier Blvd.				LAB CONTACT OR QUOTE NO.:					
CITY: San Diego		STATE: CA	ZIP: 92106	CITY: Whittier		STATE: CA	ZIP: 90602	LAB USE ONLY: <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
TEL: (562) 756-8149		EMAIL: jdinello@demaximis.com		PROJECT CONTACT: Trent Henderson thenderson@jacobandhsfrn.com									
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS				SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar				REQUESTED ANALYSES					
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): EDD													
SPECIAL INSTRUCTIONS:													
LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type	Sampling Equipment Info			Start Sampling Information			Stop Sampling Information			TO-15 (TAL 2.3)
				(I) Indoor (S) Soil Vap. (A) Ambient	Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Date	Time (24hr clock)	Canister Pressure ("Hg)	Date	Time (24hr clock)	
01A	OC_VGAC_EFF_SP242_080417	SP-EFF-GAC	Vapor	36400	1L	23802	8/4/2017	1014	-30	8/4/2017	1019	-5	X
02A	OC_VGAC_INT_SP245_080417	SP-MID-GAC	Vapor	111611	1L	237013	8/4/2017	1015	-30	8/4/2017	1020	-5	X
03A	OC_VGAC_INF_SP241_080417	SP-INF-GAC	Vapor	1L2376	1L	23779	8/4/2017	1016	-30	8/4/2017	1021	-5	X
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9													
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11													
12													
13													
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15													
Relinquished by: (Signature) 				Received by: (Signature) 				Date: 8/4/17 Time: 1105					
Relinquished by: (Signature)				Received by: (Signature)				Date: Time:					
Relinquished by: (Signature)				Received by: (Signature)				Date: Time:					

1708103

Custody Seal Intact?
Y N Note Temp

9/15/2017
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega- GWTS Monthly GAC
Project #:
Workorder #: 1709160

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 9/11/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis

Project Manager

A Eurofins Lancaster Laboratories Company

WORK ORDER #: 1709160

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	BILL TO:	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	P.O. #	
FAX:	949.679.9078	PROJECT #	Omega- GWTS Monthly GAC
DATE RECEIVED:	09/11/2017	CONTACT:	Rachel Selenis
DATE COMPLETED:	09/15/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	OC_VGAC_EFF_SP242_090717	TO-15	3.7 "Hg	15 psi
02A	OC_VGAC_INT_SP245_090717	TO-15	5.3 "Hg	15.1 psi
03A	OC_VGAC_INF_SP241_090717	TO-15	3.1 "Hg	15.4 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY:

DATE: 09/15/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1709160**

Three 1 Liter Summa Canister samples were received on September 11, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TNMOC referenced to Heptane was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: OC_VGAC_EFF_SP242_090717

Lab ID#: 1709160-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	9.8	6.5	55
Freon 113	1.2	11	8.8	88
1,1-Dichloroethene	1.2	15	4.6	61
2-Butanone (Methyl Ethyl Ketone)	4.6	7.4	14	22
Chloroform	1.2	5.6	5.6	28
Toluene	1.2	2.1	4.3	8.1
TNMOC ref. to Heptane (MW=100)	23	140	94	570

Client Sample ID: OC_VGAC_INT_SP245_090717

Lab ID#: 1709160-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	8.3	6.9	46
Freon 113	1.2	22	9.4	170
1,1-Dichloroethene	1.2	28	4.9	110
Chloroform	1.2	8.9	6.0	43
1,2-Dichloroethane	1.2	1.6	5.0	6.7
TNMOC ref. to Heptane (MW=100)	25	130	100	530

Client Sample ID: OC_VGAC_INF_SP241_090717

Lab ID#: 1709160-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	6.2	6.4	34
Freon 113	1.1	23	8.7	180
1,1-Dichloroethene	1.1	19	4.5	74
Hexane	1.1	1.8	4.0	6.3
Chloroform	1.1	5.6	5.6	27
Benzene	1.1	2.6	3.6	8.4
1,2-Dichloroethane	1.1	2.3	4.6	9.2
Trichloroethene	1.1	12	6.1	65
Toluene	1.1	3.4	4.3	13
Tetrachloroethene	1.1	89	7.7	600

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: OC_VGAC_INF_SP241_090717

Lab ID#: 1709160-03A

TNMOC ref. to Heptane (MW=100)

23

310

93

1300



Air Toxics

Client Sample ID: OC_VGAC_EFF_SP242_090717

Lab ID#: 1709160-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17091224	Date of Collection:	9/7/17 10:59:00 AM	
Dil. Factor:	2.30	Date of Analysis:	9/13/17 01:51 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Vinyl Chloride	1.2	Not Detected	2.9	Not Detected
Freon 11	1.2	9.8	6.5	55
Freon 113	1.2	11	8.8	88
1,1-Dichloroethene	1.2	15	4.6	61
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Hexane	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	7.4	14	22
Chloroform	1.2	5.6	5.6	28
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Toluene	1.2	2.1	4.3	8.1
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
TNMOC ref. to Heptane (MW=100)	23	140	94	570

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: OC_VGAC_INT_SP245_090717

Lab ID#: 1709160-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17091225	Date of Collection:	9/7/17 11:01:00 AM	
Dil. Factor:	2.46	Date of Analysis:	9/13/17 02:19 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	8.3	6.9	46
Freon 113	1.2	22	9.4	170
1,1-Dichloroethene	1.2	28	4.9	110
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	Not Detected	14	Not Detected
Chloroform	1.2	8.9	6.0	43
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	1.6	5.0	6.7
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected
TNMOC ref. to Heptane (MW=100)	25	130	100	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: OC_VGAC_INF_SP241_090717

Lab ID#: 1709160-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17091226	Date of Collection:	9/7/17 11:02:00 AM	
Dil. Factor:	2.28	Date of Analysis:	9/13/17 02:47 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Freon 11	1.1	6.2	6.4	34
Freon 113	1.1	23	8.7	180
1,1-Dichloroethene	1.1	19	4.5	74
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Hexane	1.1	1.8	4.0	6.3
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	13	Not Detected
Chloroform	1.1	5.6	5.6	27
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	2.6	3.6	8.4
1,2-Dichloroethane	1.1	2.3	4.6	9.2
Trichloroethene	1.1	12	6.1	65
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Toluene	1.1	3.4	4.3	13
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	89	7.7	600
o-Xylene	1.1	Not Detected	5.0	Not Detected
TNMOC ref. to Heptane (MW=100)	23	310	93	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	88	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1709160-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17091207	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 9/12/17 01:36 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	86	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1709160-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17091202	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/17 09:25 AM

Compound	%Recovery
Freon 12	103
Vinyl Chloride	105
Freon 11	102
Freon 113	94
1,1-Dichloroethene	98
2-Propanol	100
Carbon Disulfide	106
Methylene Chloride	109
Hexane	100
1,1-Dichloroethane	110
2-Butanone (Methyl Ethyl Ketone)	101
Chloroform	108
1,1,1-Trichloroethane	102
Carbon Tetrachloride	97
Benzene	112
1,2-Dichloroethane	115
Trichloroethene	105
1,4-Dioxane	100
Toluene	106
1,1,2-Trichloroethane	106
Tetrachloroethene	94
o-Xylene	97
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1709160-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17091203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/17 09:51 AM
<hr/>			
Compound	%Recovery	Method	Limits
Freon 12	111	70-130	
Vinyl Chloride	116	70-130	
Freon 11	110	70-130	
Freon 113	99	70-130	
1,1-Dichloroethene	104	70-130	
2-Propanol	110	70-130	
Carbon Disulfide	99	70-130	
Methylene Chloride	113	70-130	
Hexane	107	70-130	
1,1-Dichloroethane	116	70-130	
2-Butanone (Methyl Ethyl Ketone)	106	70-130	
Chloroform	113	70-130	
1,1,1-Trichloroethane	105	70-130	
Carbon Tetrachloride	101	70-130	
Benzene	116	70-130	
1,2-Dichloroethane	118	70-130	
Trichloroethene	110	70-130	
1,4-Dioxane	104	70-130	
Toluene	109	70-130	
1,1,2-Trichloroethane	113	70-130	
Tetrachloroethene	100	70-130	
o-Xylene	105	70-130	
TNMOC ref. to Heptane (MW=100)	Not Spiked		

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	Limits
Toluene-d8	106	70-130	
1,2-Dichloroethane-d4	108	70-130	
4-Bromofluorobenzene	93	70-130	



Air Toxics

Client Sample ID: LCSD

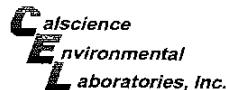
Lab ID#: 1709160-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17091204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/17 10:18 AM
Compound	%Recovery	Method	Limits
Freon 12	115	70-130	
Vinyl Chloride	117	70-130	
Freon 11	113	70-130	
Freon 113	100	70-130	
1,1-Dichloroethene	108	70-130	
2-Propanol	113	70-130	
Carbon Disulfide	101	70-130	
Methylene Chloride	117	70-130	
Hexane	110	70-130	
1,1-Dichloroethane	120	70-130	
2-Butanone (Methyl Ethyl Ketone)	110	70-130	
Chloroform	117	70-130	
1,1,1-Trichloroethane	108	70-130	
Carbon Tetrachloride	104	70-130	
Benzene	116	70-130	
1,2-Dichloroethane	119	70-130	
Trichloroethene	110	70-130	
1,4-Dioxane	104	70-130	
Toluene	110	70-130	
1,1,2-Trichloroethane	113	70-130	
Tetrachloroethene	101	70-130	
o-Xylene	107	70-130	
TNMOC ref. to Heptane (MW=100)	Not Spiked		

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	Limits
Toluene-d8	106	70-130	
1,2-Dichloroethane-d4	111	70-130	
4-Bromofluorobenzene	94	70-130	



7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7601

AIR CHAIN OF CUSTODY RECORD

DATE: 09/07/17

PAGE: 1 OF 1

LABORATORY CLIENT: de maximis				CLIENT PROJECT NAME / NUMBER: Omega - GWTS Monthly GAC				P.O. NO.:					
ADDRESS: 1322 Scott St., Suite 104				PROJECT ADDRESS: 12520 Whittier Blvd.				LAB CONTACT OR QUOTE NO.:					
CITY: San Diego		STATE: CA	ZIP: 92106	CITY: Whittier		STATE: CA	ZIP: 90602	LAB USE ONLY					
TEL: (562) 756-8149		EMAIL: jdinello@demaximis.com		PROJECT CONTACT: Trent Henderson thenderson@jacobandhafner.com									
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS				SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar				REQUESTED ANALYSES					
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) <input checked="" type="checkbox"/> EDD													
SPECIAL INSTRUCTIONS:													
01A 02B 03P	SAMPLE ID	FIELD ID / Point of Collection	Air Type	Sampling Equipment Info			Start Sampling Information			Stop Sampling Information			TO-15 (TAL 23)
	LAB USE ONLY	(I) Indoor (SV) Soil Vap. (A) Ambient	Canister ID#	Canister Size 5L or 1L	Flow Controller ID#	Date	Time (24hr clock)	Canister Pressure (^o Hg)	Date	Time (24hr clock)	Canister Pressure (^o Hg)		
	1	OC_VGAC_EFF_SP242_090717	SP-EFF-GAC	Vapor		23785	9/7/2017	1054	-30	9/7/2017	1059	-5	
	2	OC_VGAC_INT_SP245_090717	SP-MID-GAC	Vapor	1L2376	1L	-	1056	-30	9/7/2017	1101	-5	
	3	OC_VGAC_INF_SP241_090717	SP-INF-GAC	Vapor	1L1539	1L	23216	1057	-30	9/7/2017	1102	-5	
	4												
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	10												
	11												
	12												
	13												
	14												
15													
Relinquished by: (Signature)				Received by: (Signature)				Date: 9/7/17 Time: 0925					
J4A 9/8/17 1530								Date: Time:					
Relinquished by: (Signature)				Received by: (Signature)				Date: Time:					
Relinquished by: (Signature)				Received by: (Signature)				Date: Time:					

Custody Seal Intact?

Y N ¹⁰
Temp ⁷²
Fe/R

1709160

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-188803-1

Client Project/Site: Omega Chemical - GWTS Monthly

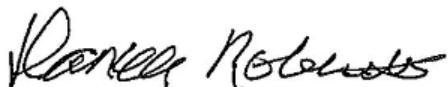
For:

Jacob & Hefner Associates P.C.

15375 Barranca Parkway, J-101

Irvine, California 92618

Attn: Trent Henderson



Authorized for release by:

7/27/2017 4:13:14 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-188803-1	OC_SP220B_EFF_072117	Water	07/21/17 10:05	07/21/17 13:20
440-188803-2	OC_SP210_INF_072117	Water	07/21/17 10:10	07/21/17 13:20
440-188803-3	OC_TB_072117	Water	07/21/17 10:00	07/21/17 13:20

1

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TestAmerica Irvine

Case Narrative

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Job ID: 440-188803-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-188803-1

Comments

No additional comments.

Receipt

The samples were received on 7/21/2017 1:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.7° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Client Sample ID: OC_SP220B_EFF_072117

Lab Sample ID: 440-188803-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	24		0.51	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_SP210_INF_072117

Lab Sample ID: 440-188803-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.84	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	1.2		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.55	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	31		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	5.8		1.0	0.25	ug/L	1		8260B	Total/NA
Chloroform	18		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	28		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	14		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	110		5.0	0.50	ug/L	1		8260B	Total/NA
Total Volatile Organic Compounds	690		150	75	ug/L	1		8260B	Total/NA
Tetrachloroethene - DL	470		20	5.0	ug/L	20		8260B	Total/NA

Client Sample ID: OC_TB_072117

Lab Sample ID: 440-188803-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Client Sample ID: OC_SP220B_EFF_072117

Lab Sample ID: 440-188803-1

Matrix: Water

Date Collected: 07/21/17 10:05

Date Received: 07/21/17 13:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 20:48	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			07/24/17 20:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 20:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/24/17 20:48	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/24/17 20:48	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Benzene	ND		0.50	0.25	ug/L			07/24/17 20:48	1
Bromobenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Bromoform	ND		1.0	0.40	ug/L			07/24/17 20:48	1
Bromomethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/24/17 20:48	1
Chlorobenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Chloroethane	ND		1.0	0.40	ug/L			07/24/17 20:48	1
Chloroform	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Chloromethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/24/17 20:48	1
Dibromochloromethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Dibromomethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			07/24/17 20:48	1
Ethylbenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Isopropylbenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/24/17 20:48	1
Methylene Chloride	ND		5.0	0.88	ug/L			07/24/17 20:48	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Naphthalene	ND		1.0	0.40	ug/L			07/24/17 20:48	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/24/17 20:48	1
N-Propylbenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Client Sample ID: OC_SP220B_EFF_072117

Lab Sample ID: 440-188803-1

Matrix: Water

Date Collected: 07/21/17 10:05

Date Received: 07/21/17 13:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Styrene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Tetrachloroethene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Toluene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/24/17 20:48	1
Trichloroethene	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			07/24/17 20:48	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/24/17 20:48	1
Acetone	ND	F1	10	10	ug/L			07/24/17 20:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			07/24/17 20:48	1
Total Volatile Organic Compounds	ND		150	75	ug/L			07/24/17 20:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					07/24/17 20:48	1
Dibromofluoromethane (Surr)	100		76 - 132					07/24/17 20:48	1
Toluene-d8 (Surr)	104		80 - 128					07/24/17 20:48	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130					07/24/17 20:48	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	24		0.51	0.10	ug/L		07/23/17 09:04	07/25/17 05:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	51		36 - 90				07/23/17 09:04	07/25/17 05:48	1

Client Sample ID: OC_SP210_INF_072117

Lab Sample ID: 440-188803-2

Matrix: Water

Date Collected: 07/21/17 10:10

Date Received: 07/21/17 13:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,1,1-Trichloroethane	0.84 J		1.0	0.25	ug/L			07/24/17 22:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,1,2-Trichloroethane	1.2		1.0	0.25	ug/L			07/24/17 22:08	1
1,1-Dichloroethane	0.55 J		1.0	0.25	ug/L			07/24/17 22:08	1
1,1-Dichloroethene	31		1.0	0.25	ug/L			07/24/17 22:08	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 22:08	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			07/24/17 22:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 22:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/24/17 22:08	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,2-Dichloroethane	5.8		1.0	0.25	ug/L			07/24/17 22:08	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 22:08	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Client Sample ID: OC_SP210_INF_072117

Lab Sample ID: 440-188803-2

Matrix: Water

Date Collected: 07/21/17 10:10

Date Received: 07/21/17 13:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/24/17 22:08	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Benzene	ND		0.50	0.25	ug/L			07/24/17 22:08	1
Bromobenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Bromoform	ND		1.0	0.40	ug/L			07/24/17 22:08	1
Bromomethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/24/17 22:08	1
Chlorobenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Chloroethane	ND		1.0	0.40	ug/L			07/24/17 22:08	1
Chloroform	18		1.0	0.25	ug/L			07/24/17 22:08	1
Chloromethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/24/17 22:08	1
Dibromochloromethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Dibromomethane	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			07/24/17 22:08	1
Ethylbenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Isopropylbenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/24/17 22:08	1
Methylene Chloride	ND		5.0	0.88	ug/L			07/24/17 22:08	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Naphthalene	ND		1.0	0.40	ug/L			07/24/17 22:08	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/24/17 22:08	1
N-Propylbenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
o-Xylene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Styrene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
Toluene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 22:08	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/24/17 22:08	1
Trichloroethene	28		1.0	0.25	ug/L			07/24/17 22:08	1
Trichlorofluoromethane	14		1.0	0.25	ug/L			07/24/17 22:08	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/24/17 22:08	1
Acetone	ND		10	10	ug/L			07/24/17 22:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	110		5.0	0.50	ug/L			07/24/17 22:08	1
Total Volatile Organic Compounds	690		150	75	ug/L			07/24/17 22:08	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Client Sample ID: OC_SP210_INF_072117

Lab Sample ID: 440-188803-2

Matrix: Water

Date Collected: 07/21/17 10:10
 Date Received: 07/21/17 13:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		07/24/17 22:08	1
Dibromofluoromethane (Surr)	100		76 - 132		07/24/17 22:08	1
Toluene-d8 (Surr)	106		80 - 128		07/24/17 22:08	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		07/24/17 22:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	470		20	5.0	ug/L			07/24/17 22:34	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					07/24/17 22:34	20
Dibromofluoromethane (Surr)	101		76 - 132					07/24/17 22:34	20
Toluene-d8 (Surr)	104		80 - 128					07/24/17 22:34	20
1,2-Dichloroethane-d4 (Surr)	105		70 - 130					07/24/17 22:34	20

Client Sample ID: OC_TB_072117

Lab Sample ID: 440-188803-3

Matrix: Water

Date Collected: 07/21/17 10:00
 Date Received: 07/21/17 13:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 23:01	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			07/24/17 23:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 23:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/24/17 23:01	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/24/17 23:01	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
Benzene	ND		0.50	0.25	ug/L			07/24/17 23:01	1
Bromobenzene	ND		1.0	0.25	ug/L			07/24/17 23:01	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1
Bromoform	ND		1.0	0.40	ug/L			07/24/17 23:01	1
Bromomethane	ND		1.0	0.25	ug/L			07/24/17 23:01	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Client Sample ID: OC_TB_072117

Lab Sample ID: 440-188803-3

Matrix: Water

Date Collected: 07/21/17 10:00

Date Received: 07/21/17 13:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		0.50	0.25	ug/L		07/24/17 23:01		1
Chlorobenzene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Chloroethane	ND		1.0	0.40	ug/L		07/24/17 23:01		1
Chloroform	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Chloromethane	ND		1.0	0.25	ug/L		07/24/17 23:01		1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L		07/24/17 23:01		1
Dibromochloromethane	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Dibromomethane	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L		07/24/17 23:01		1
Ethylbenzene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Hexachlorobutadiene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Isopropylbenzene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
m,p-Xylene	ND		1.0	0.50	ug/L		07/24/17 23:01		1
Methylene Chloride	ND		5.0	0.88	ug/L		07/24/17 23:01		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Naphthalene	ND		1.0	0.40	ug/L		07/24/17 23:01		1
n-Butylbenzene	ND		1.0	0.40	ug/L		07/24/17 23:01		1
N-Propylbenzene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
o-Xylene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
sec-Butylbenzene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Styrene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
tert-Butylbenzene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Tetrachloroethene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Toluene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L		07/24/17 23:01		1
Trichloroethene	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Trichlorofluoromethane	ND		1.0	0.25	ug/L		07/24/17 23:01		1
Vinyl chloride	ND		0.50	0.25	ug/L		07/24/17 23:01		1
Acetone	ND		10	10	ug/L		07/24/17 23:01		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L		07/24/17 23:01		1
Total Volatile Organic Compounds	ND		150	75	ug/L		07/24/17 23:01		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120		07/24/17 23:01	1
Dibromofluoromethane (Surr)	101		76 - 132		07/24/17 23:01	1
Toluene-d8 (Surr)	107		80 - 128		07/24/17 23:01	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		07/24/17 23:01	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-188803-1	OC_SP220B_EFF_072117	100	100	104	107
440-188803-1 MS	OC_SP220B_EFF_072117	99	100	102	104
440-188803-1 MSD	OC_SP220B_EFF_072117	97	100	103	103
440-188803-2	OC_SP210_INF_072117	101	100	106	105
440-188803-2 - DL	OC_SP210_INF_072117	102	101	104	105
440-188803-3	OC_TB_072117	103	101	107	104
LCS 440-419080/5	Lab Control Sample	98	101	104	101
LCS 440-419080/6	Lab Control Sample	101	99	106	100
MB 440-419080/4	Method Blank	102	100	106	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		14DD8 (36-90)	
440-188781-E-2-A MS	Matrix Spike	61	
440-188781-E-2-B MSD	Matrix Spike Duplicate	49	
440-188803-1	OC_SP220B_EFF_072117	51	
LCS 440-418870/2-A	Lab Control Sample	66	
MB 440-418870/1-A	Method Blank	61	

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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TestAmerica Irvine

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Client Sample ID: OC_SP220B_EFF_072117

Lab Sample ID: 440-188803-1

Matrix: Water

Date Collected: 07/21/17 10:05

Date Received: 07/21/17 13:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	419080	07/24/17 20:48	JB	TAL IRV
Total/NA	Prep	3520C			990 mL	1.0 mL	418870	07/23/17 09:04	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			419113	07/25/17 05:48	TL	TAL IRV

Client Sample ID: OC_SP210_INF_072117

Lab Sample ID: 440-188803-2

Matrix: Water

Date Collected: 07/21/17 10:10

Date Received: 07/21/17 13:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	419080	07/24/17 22:08	JB	TAL IRV
Total/NA	Analysis	8260B	DL	20	10 mL	10 mL	419080	07/24/17 22:34	JB	TAL IRV

Client Sample ID: OC_TB_072117

Lab Sample ID: 440-188803-3

Matrix: Water

Date Collected: 07/21/17 10:00

Date Received: 07/21/17 13:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	419080	07/24/17 23:01	JB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-419080/4

Matrix: Water

Analysis Batch: 419080

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 19:29	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			07/24/17 19:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/24/17 19:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/24/17 19:29	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/24/17 19:29	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Benzene	ND		0.50	0.25	ug/L			07/24/17 19:29	1
Bromobenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Bromoform	ND		1.0	0.40	ug/L			07/24/17 19:29	1
Bromomethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/24/17 19:29	1
Chlorobenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Chloroethane	ND		1.0	0.40	ug/L			07/24/17 19:29	1
Chloroform	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Chloromethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/24/17 19:29	1
Dibromochloromethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Dibromomethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			07/24/17 19:29	1
Ethylbenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Isopropylbenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/24/17 19:29	1
Methylene Chloride	ND		5.0	0.88	ug/L			07/24/17 19:29	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Naphthalene	ND		1.0	0.40	ug/L			07/24/17 19:29	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/24/17 19:29	1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-419080/4

Matrix: Water

Analysis Batch: 419080

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
o-Xylene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Styrene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Tetrachloroethene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Toluene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/24/17 19:29	1
Trichloroethene	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			07/24/17 19:29	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/24/17 19:29	1
Acetone	ND		10	10	ug/L			07/24/17 19:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			07/24/17 19:29	1
Total Volatile Organic Compounds	ND		150	75	ug/L			07/24/17 19:29	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120			1
Dibromofluoromethane (Surr)	100		76 - 132			1
Toluene-d8 (Surr)	106		80 - 128			1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130			1

Lab Sample ID: LCS 440-419080/5

Matrix: Water

Analysis Batch: 419080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1,1,2-Tetrachloroethane	25.0	27.0		ug/L		108	60 - 141	
1,1,1-Trichloroethane	25.0	26.0		ug/L		104	70 - 130	
1,1,2,2-Tetrachloroethane	25.0	27.1		ug/L		109	63 - 130	
1,1,2-Trichloroethane	25.0	28.0		ug/L		112	70 - 130	
1,1-Dichloroethane	25.0	26.5		ug/L		106	64 - 130	
1,1-Dichloroethene	25.0	23.8		ug/L		95	70 - 130	
1,1-Dichloropropene	25.0	27.6		ug/L		110	70 - 130	
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140	
1,2,3-Trichloropropane	25.0	26.9		ug/L		108	63 - 130	
1,2,4-Trichlorobenzene	25.0	24.9		ug/L		100	60 - 140	
1,2,4-Trimethylbenzene	25.0	25.6		ug/L		102	70 - 135	
1,2-Dibromo-3-Chloropropane	25.0	27.6		ug/L		111	52 - 140	
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
1,2-Dibromoethane (EDB)	25.0	27.2		ug/L		109	70 - 130	
1,2-Dichloroethane	25.0	26.4		ug/L		106	57 - 138	
1,2-Dichloropropane	25.0	26.8		ug/L		107	67 - 130	
1,3,5-Trimethylbenzene	25.0	25.8		ug/L		103	70 - 136	
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	
1,3-Dichloropropane	25.0	26.4		ug/L		106	70 - 130	
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	
2,2-Dichloropropane	25.0	27.4		ug/L		110	68 - 141	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-419080/5

Matrix: Water

Analysis Batch: 419080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier				Limits	
2-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130	
4-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130	
p-Isopropyltoluene	25.0	24.7		ug/L		99	70 - 132	
Benzene	25.0	26.5		ug/L		106	68 - 130	
Bromobenzene	25.0	25.0		ug/L		100	70 - 130	
Bromochloromethane	25.0	27.4		ug/L		109	70 - 130	
Bromodichloromethane	25.0	27.3		ug/L		109	70 - 132	
Bromoform	25.0	26.1		ug/L		104	60 - 148	
Bromomethane	25.0	25.4		ug/L		101	64 - 139	
Carbon tetrachloride	25.0	26.3		ug/L		105	60 - 150	
Chlorobenzene	25.0	25.6		ug/L		102	70 - 130	
Chloroethane	25.0	26.5		ug/L		106	64 - 135	
Chloroform	25.0	26.3		ug/L		105	70 - 130	
Chloromethane	25.0	25.9		ug/L		103	47 - 140	
cis-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 133	
cis-1,3-Dichloropropene	25.0	27.3		ug/L		109	70 - 133	
Dibromochloromethane	25.0	27.7		ug/L		111	69 - 145	
Dibromomethane	25.0	26.1		ug/L		104	70 - 130	
Dichlorodifluoromethane	25.0	23.2		ug/L		93	29 - 150	
Ethylbenzene	25.0	26.2		ug/L		105	70 - 130	
Hexachlorobutadiene	25.0	23.7		ug/L		95	10 - 150	
Isopropylbenzene	25.0	25.9		ug/L		104	70 - 136	
m,p-Xylene	25.0	26.4		ug/L		106	70 - 130	
Methylene Chloride	25.0	25.5		ug/L		102	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	27.4		ug/L		110	63 - 131	
Naphthalene	25.0	27.1		ug/L		108	60 - 140	
n-Butylbenzene	25.0	24.9		ug/L		100	65 - 150	
N-Propylbenzene	25.0	25.3		ug/L		101	67 - 139	
o-Xylene	25.0	26.1		ug/L		104	70 - 130	
sec-Butylbenzene	25.0	24.8		ug/L		99	70 - 138	
Styrene	25.0	26.7		ug/L		107	70 - 134	
tert-Butylbenzene	25.0	25.1		ug/L		100	70 - 130	
Tetrachloroethene	25.0	25.7		ug/L		103	70 - 130	
Toluene	25.0	26.1		ug/L		104	70 - 130	
trans-1,2-Dichloroethene	25.0	25.5		ug/L		102	70 - 130	
trans-1,3-Dichloropropene	25.0	27.6		ug/L		110	70 - 132	
Trichloroethene	25.0	26.0		ug/L		104	70 - 130	
Trichlorofluoromethane	25.0	25.9		ug/L		104	60 - 150	
Vinyl chloride	25.0	25.6		ug/L		103	59 - 133	
Acetone	25.0	29.7		ug/L		119	10 - 150	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	101		76 - 132
Toluene-d8 (Surr)	104		80 - 128
1,2-Dichloroethane-d4 (Surr)	101		70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-419080/6

Matrix: Water

Analysis Batch: 419080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101				80 - 120
Dibromofluoromethane (Surr)	99				76 - 132
Toluene-d8 (Surr)	106				80 - 128
1,2-Dichloroethane-d4 (Surr)	100				70 - 130

Lab Sample ID: 440-188803-1 MS

Matrix: Water

Analysis Batch: 419080

Client Sample ID: OC_SP220B_EFF_072117
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		25.0	27.6		ug/L		110	60 - 149
1,1,1-Trichloroethane	ND		25.0	26.4		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	28.7		ug/L		115	63 - 130
1,1,2-Trichloroethane	ND		25.0	28.6		ug/L		115	70 - 130
1,1-Dichloroethane	ND		25.0	26.9		ug/L		107	65 - 130
1,1-Dichloroethene	ND		25.0	26.8		ug/L		107	70 - 130
1,1-Dichloropropene	ND		25.0	28.5		ug/L		114	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	27.2		ug/L		109	60 - 140
1,2,3-Trichloropropane	ND		25.0	28.2		ug/L		113	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	26.4		ug/L		105	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	26.1		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	30.7		ug/L		123	48 - 140
1,2-Dichlorobenzene	ND		25.0	27.0		ug/L		108	70 - 130
1,2-Dibromoethane (EDB)	ND		25.0	28.0		ug/L		112	70 - 131
1,2-Dichloroethane	ND		25.0	26.8		ug/L		107	56 - 146
1,2-Dichloropropene	ND		25.0	27.5		ug/L		110	69 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.1		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.9		ug/L		104	70 - 130
1,3-Dichloropropane	ND		25.0	26.9		ug/L		108	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130
2,2-Dichloropropane	ND		25.0	27.4		ug/L		109	69 - 138
2-Chlorotoluene	ND		25.0	25.6		ug/L		102	70 - 130
4-Chlorotoluene	ND		25.0	26.4		ug/L		106	70 - 130
p-Isopropyltoluene	ND		25.0	25.8		ug/L		103	70 - 130
Benzene	ND		25.0	27.1		ug/L		108	66 - 130
Bromobenzene	ND		25.0	25.2		ug/L		101	70 - 130
Bromochloromethane	ND		25.0	28.0		ug/L		112	70 - 130
Bromodichloromethane	ND		25.0	28.6		ug/L		115	70 - 138
Bromoform	ND		25.0	27.8		ug/L		111	59 - 150
Bromomethane	ND		25.0	25.8		ug/L		103	62 - 131
Carbon tetrachloride	ND		25.0	27.2		ug/L		109	60 - 150
Chlorobenzene	ND		25.0	26.0		ug/L		104	70 - 130
Chloroethane	ND		25.0	26.5		ug/L		106	68 - 130
Chloroform	ND		25.0	27.2		ug/L		109	70 - 130
Chloromethane	ND		25.0	26.4		ug/L		106	39 - 144
cis-1,2-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.9		ug/L		112	70 - 133
Dibromochloromethane	ND		25.0	28.0		ug/L		112	70 - 148

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-188803-1 MS

Client Sample ID: OC_SP220B_EFF_072117

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419080

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Dibromomethane	ND		25.0	27.0		ug/L		108	70 - 130
Dichlorodifluoromethane	ND		25.0	23.7		ug/L		95	25 - 142
Ethylbenzene	ND		25.0	26.7		ug/L		107	70 - 130
Hexachlorobutadiene	ND		25.0	24.7		ug/L		99	10 - 150
Isopropylbenzene	ND		25.0	26.4		ug/L		106	70 - 132
m,p-Xylene	ND		25.0	26.8		ug/L		107	70 - 133
Methylene Chloride	ND		25.0	25.7		ug/L		103	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	28.2		ug/L		113	70 - 130
Naphthalene	ND		25.0	28.6		ug/L		114	60 - 140
n-Butylbenzene	ND		25.0	26.4		ug/L		105	61 - 149
N-Propylbenzene	ND		25.0	25.8		ug/L		103	66 - 135
o-Xylene	ND		25.0	26.7		ug/L		107	70 - 133
sec-Butylbenzene	ND		25.0	25.8		ug/L		103	67 - 134
Styrene	ND		25.0	26.4		ug/L		106	29 - 150
tert-Butylbenzene	ND		25.0	25.7		ug/L		103	70 - 130
Tetrachloroethene	ND		25.0	26.5		ug/L		106	70 - 137
Toluene	ND		25.0	26.9		ug/L		107	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130
trans-1,3-Dichloropropene	ND		25.0	28.0		ug/L		112	70 - 138
Trichloroethene	ND		25.0	27.3		ug/L		109	70 - 130
Trichlorofluoromethane	ND		25.0	26.6		ug/L		106	60 - 150
Vinyl chloride	ND		25.0	26.5		ug/L		106	50 - 137
Acetone	ND	F1	25.0	42.1	F1	ug/L		168	10 - 150

MS MS

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	100		76 - 132
Toluene-d8 (Surr)	102		80 - 128
1,2-Dichloroethane-d4 (Surr)	104		70 - 130

Lab Sample ID: 440-188803-1 MSD

Client Sample ID: OC_SP220B_EFF_072117

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419080

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		25.0	27.4		ug/L		110	60 - 149
1,1,1-Trichloroethane	ND		25.0	26.5		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	28.0		ug/L		112	63 - 130
1,1,2-Trichloroethane	ND		25.0	27.4		ug/L		110	70 - 130
1,1-Dichloroethane	ND		25.0	26.2		ug/L		105	65 - 130
1,1-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
1,1-Dichloropropene	ND		25.0	28.3		ug/L		113	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	27.4		ug/L		110	60 - 140
1,2,3-Trichloropropane	ND		25.0	27.5		ug/L		110	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	26.0		ug/L		104	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	29.8		ug/L		119	48 - 140
1,2-Dichlorobenzene	ND		25.0	26.6		ug/L		107	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-188803-1 MSD

Client Sample ID: OC_SP220B_EFF_072117

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419080

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,2-Dibromoethane (EDB)	ND		25.0	27.4		ug/L	110	70 - 131	2	25	
1,2-Dichloroethane	ND		25.0	26.2		ug/L	105	56 - 146	2	20	
1,2-Dichloropropane	ND		25.0	26.6		ug/L	106	69 - 130	3	20	
1,3,5-Trimethylbenzene	ND		25.0	26.1		ug/L	104	70 - 130	0	20	
1,3-Dichlorobenzene	ND		25.0	26.1		ug/L	104	70 - 130	1	20	
1,3-Dichloropropane	ND		25.0	26.5		ug/L	106	70 - 130	2	25	
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L	103	70 - 130	2	20	
2,2-Dichloropropane	ND		25.0	27.1		ug/L	108	69 - 138	1	25	
2-Chlorotoluene	ND		25.0	25.2		ug/L	101	70 - 130	1	20	
4-Chlorotoluene	ND		25.0	26.3		ug/L	105	70 - 130	0	20	
p-Isopropyltoluene	ND		25.0	26.0		ug/L	104	70 - 130	1	20	
Benzene	ND		25.0	26.5		ug/L	106	66 - 130	2	20	
Bromobenzene	ND		25.0	25.4		ug/L	102	70 - 130	1	20	
Bromochloromethane	ND		25.0	27.2		ug/L	109	70 - 130	3	25	
Bromodichloromethane	ND		25.0	27.7		ug/L	111	70 - 138	3	20	
Bromoform	ND		25.0	26.6		ug/L	106	59 - 150	5	25	
Bromomethane	ND		25.0	25.4		ug/L	102	62 - 131	2	25	
Carbon tetrachloride	ND		25.0	26.7		ug/L	107	60 - 150	2	25	
Chlorobenzene	ND		25.0	25.7		ug/L	103	70 - 130	1	20	
Chloroethane	ND		25.0	26.6		ug/L	106	68 - 130	0	25	
Chloroform	ND		25.0	26.5		ug/L	106	70 - 130	2	20	
Chloromethane	ND		25.0	25.7		ug/L	103	39 - 144	3	25	
cis-1,2-Dichloroethene	ND		25.0	24.8		ug/L	99	70 - 130	4	20	
cis-1,3-Dichloropropene	ND		25.0	27.1		ug/L	108	70 - 133	3	20	
Dibromochloromethane	ND		25.0	27.1		ug/L	109	70 - 148	3	25	
Dibromomethane	ND		25.0	26.6		ug/L	106	70 - 130	2	25	
Dichlorodifluoromethane	ND		25.0	23.6		ug/L	94	25 - 142	1	30	
Ethylbenzene	ND		25.0	26.2		ug/L	105	70 - 130	2	20	
Hexachlorobutadiene	ND		25.0	25.6		ug/L	102	10 - 150	3	20	
Isopropylbenzene	ND		25.0	26.4		ug/L	106	70 - 132	0	20	
m,p-Xylene	ND		25.0	26.1		ug/L	104	70 - 133	3	25	
Methylene Chloride	ND		25.0	25.1		ug/L	100	52 - 130	2	20	
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.2		ug/L	109	70 - 130	4	25	
Naphthalene	ND		25.0	28.0		ug/L	112	60 - 140	2	30	
n-Butylbenzene	ND		25.0	26.4		ug/L	106	61 - 149	0	20	
N-Propylbenzene	ND		25.0	25.9		ug/L	103	66 - 135	0	20	
o-Xylene	ND		25.0	26.1		ug/L	104	70 - 133	2	20	
sec-Butylbenzene	ND		25.0	25.9		ug/L	104	67 - 134	0	20	
Styrene	ND		25.0	25.4		ug/L	102	29 - 150	4	35	
tert-Butylbenzene	ND		25.0	25.8		ug/L	103	70 - 130	0	20	
Tetrachloroethene	ND		25.0	26.3		ug/L	105	70 - 137	1	20	
Toluene	ND		25.0	26.7		ug/L	107	70 - 130	1	20	
trans-1,2-Dichloroethene	ND		25.0	25.6		ug/L	102	70 - 130	0	20	
trans-1,3-Dichloropropene	ND		25.0	27.7		ug/L	111	70 - 138	1	25	
Trichloroethene	ND		25.0	26.6		ug/L	107	70 - 130	2	20	
Trichlorofluoromethane	ND		25.0	26.4		ug/L	106	60 - 150	1	25	
Vinyl chloride	ND		25.0	25.7		ug/L	103	50 - 137	3	30	
Acetone	ND	F1	25.0	40.3	F1	ug/L	161	10 - 150	4	35	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-188803-1 MSD

Client Sample ID: OC_SP220B_EFF_072117

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419080

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	100		76 - 132
Toluene-d8 (Surr)	103		80 - 128
1,2-Dichloroethane-d4 (Surr)	103		70 - 130

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-418870/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419113

Prep Batch: 418870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L	D	07/23/17 09:04	07/25/17 01:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	61		36 - 90	07/23/17 09:04	07/25/17 01:05	1

Lab Sample ID: LCS 440-418870/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419113

Prep Batch: 418870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limts
1,4-Dioxane	2.00	1.30		ug/L	D	65	36 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	66		36 - 90

Lab Sample ID: 440-188781-E-2-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419113

Prep Batch: 418870

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limts
1,4-Dioxane	ND		2.00	1.30		ug/L	D	65	12 - 100

Surrogate	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	61		36 - 90

Lab Sample ID: 440-188781-E-2-B MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 419113

Prep Batch: 418870

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD
1,4-Dioxane	ND		2.03	1.05		ug/L	D	52	12 - 100

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8 (Surr)	49		36 - 90

TestAmerica Irvine

QC Association Summary

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

GC/MS VOA

Analysis Batch: 419080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188803-1	OC_SP220B_EFF_072117	Total/NA	Water	8260B	5
440-188803-2	OC_SP210_INF_072117	Total/NA	Water	8260B	6
440-188803-2 - DL	OC_SP210_INF_072117	Total/NA	Water	8260B	7
440-188803-3	OC_TB_072117	Total/NA	Water	8260B	8
MB 440-419080/4	Method Blank	Total/NA	Water	8260B	9
LCS 440-419080/5	Lab Control Sample	Total/NA	Water	8260B	10
LCS 440-419080/6	Lab Control Sample	Total/NA	Water	8260B	11
440-188803-1 MS	OC_SP220B_EFF_072117	Total/NA	Water	8260B	12
440-188803-1 MSD	OC_SP220B_EFF_072117	Total/NA	Water	8260B	13

GC/MS Semi VOA

Prep Batch: 418870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188803-1	OC_SP220B_EFF_072117	Total/NA	Water	3520C	11
MB 440-418870/1-A	Method Blank	Total/NA	Water	3520C	12
LCS 440-418870/2-A	Lab Control Sample	Total/NA	Water	3520C	13
440-188781-E-2-A MS	Matrix Spike	Total/NA	Water	3520C	14
440-188781-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	15

Analysis Batch: 419113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-188803-1	OC_SP220B_EFF_072117	Total/NA	Water	8270C SIM	418870
MB 440-418870/1-A	Method Blank	Total/NA	Water	8270C SIM	418870
LCS 440-418870/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	418870
440-188781-E-2-A MS	Matrix Spike	Total/NA	Water	8270C SIM	418870
440-188781-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM	418870

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-188803-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312017-3	07-31-17 *
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614

phone 949.261.1022 fax

Chain of Custody Record

TestAmerica

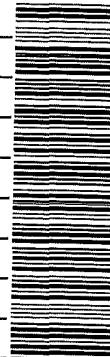
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

21

Client Contact		Project Manager: Trent Henderson		Site Contact: Khalid Azhar		Date: 7/17/2017		COC No:
De Maximis - Jaime Dinello 1322 Scott St., Suite 104 San Diego, CA 92106 (562) 756-8149		Tel/Fax: 949 453 1045/949 453 1047		Lab Contact: Danielle Roberts		Carrier:		1 of 1 COCs
		Analysis Turnaround Time						Sampler:
		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:
		TAT if different from Below <u>STD</u>						Walk-in Client:
		<input type="checkbox"/> 2 weeks						Lab Sampling:
		<input type="checkbox"/> 1 week						
		<input type="checkbox"/> 2 days						
		<input type="checkbox"/> 1 day						
Project Name: Omega Chemical - GWTS Monthly Site: Omega Chemical P O #:		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Prepared Sample (Y/N)	Sample Specific Notes:
OC_SP220B_EFF_07/17		7/17/2017	1005	Grab	GW	5	x x	
OC_SP210_INF_07/17		7/17/2017	1010	Grab	GW	3	x	
OC_TB_07/17		7/17/2017	1000		H2O	3	x	
Preservation Used: 1=Ice; 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other								



440-188833 Chain of Custody

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	<input type="checkbox"/> Return to Client	<input type="checkbox"/> Disposal by Lab	<input type="checkbox"/> Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 5.4 Corr'd: 5.7		Therm ID No.: TR84
Relinquished by:	Company:	Date/Time: 7/21/17 1320	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA-I	Date/Time: 7/21/17 1320

15/21

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Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-188803-1

Login Number: 188803

List Source: TestAmerica Irvine

List Number: 1

Creator: Garcia, Veronica G

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-189638-1

Client Project/Site: Omega Chemical - GWTS Monthly

For:

Jacob & Hefner Associates P.C.

15375 Barranca Parkway, J-101

Irvine, California 92618

Attn: Trent Henderson



Authorized for release by:

8/10/2017 4:12:27 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

LINKS

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The
Expert

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-189638-1	OC_SP220B_EFF_080417	Water	08/04/17 09:57	08/04/17 13:44
440-189638-2	OC_SP210_INF_080417	Water	08/04/17 09:59	08/04/17 13:44
440-189638-3	OC_TB_080417	Water	08/04/17 09:49	08/04/17 13:44

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TestAmerica Irvine

Case Narrative

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Job ID: 440-189638-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-189638-1

Comments

No additional comments.

Receipt

The samples were received on 8/4/2017 1:44 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C SIM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 440-421578 and analytical batch 440-421703 were outside control limits: (440-189631-I-5-A MS) and (440-189631-I-5-B MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Client Sample ID: OC_SP220B_EFF_080417

Lab Sample ID: 440-189638-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20		10	10	ug/L	1		8260B	Total/NA
1,4-Dioxane	27		0.48	0.095	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_SP210_INF_080417

Lab Sample ID: 440-189638-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	29		10	2.5	ug/L	10		8260B	Total/NA
1,2-Dichloroethane	6.7	J	10	2.5	ug/L	10		8260B	Total/NA
Chloroform	17		10	2.5	ug/L	10		8260B	Total/NA
Tetrachloroethene	470		10	2.5	ug/L	10		8260B	Total/NA
Trichloroethene	27		10	2.5	ug/L	10		8260B	Total/NA
Trichlorofluoromethane	16		10	2.5	ug/L	10		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	110		50	5.0	ug/L	10		8260B	Total/NA

Client Sample ID: OC_TB_080417

Lab Sample ID: 440-189638-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Client Sample ID: OC_SP220B_EFF_080417

Lab Sample ID: 440-189638-1

Matrix: Water

Date Collected: 08/04/17 09:57

Date Received: 08/04/17 13:44

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/17 00:44	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/08/17 00:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/17 00:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/08/17 00:44	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/08/17 00:44	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Benzene	ND		0.50	0.25	ug/L			08/08/17 00:44	1
Bromobenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Bromoform	ND		1.0	0.40	ug/L			08/08/17 00:44	1
Bromomethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/08/17 00:44	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Chloroethane	ND		1.0	0.40	ug/L			08/08/17 00:44	1
Chloroform	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Chloromethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/17 00:44	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Dibromomethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/08/17 00:44	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/08/17 00:44	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/08/17 00:44	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Naphthalene	ND		1.0	0.40	ug/L			08/08/17 00:44	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/08/17 00:44	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Client Sample ID: OC_SP220B_EFF_080417

Lab Sample ID: 440-189638-1

Matrix: Water

Date Collected: 08/04/17 09:57

Date Received: 08/04/17 13:44

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Styrene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Toluene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/17 00:44	1
Trichloroethene	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/08/17 00:44	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/08/17 00:44	1
Acetone	20		10	10	ug/L			08/08/17 00:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/08/17 00:44	1
Total Volatile Organic Compounds	ND		150	75	ug/L			08/08/17 00:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		80 - 120					08/08/17 00:44	1
Dibromofluoromethane (Surr)	107		76 - 132					08/08/17 00:44	1
Toluene-d8 (Surr)	87		80 - 128					08/08/17 00:44	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130					08/08/17 00:44	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	27		0.48	0.095	ug/L		08/06/17 09:35	08/07/17 15:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	59		36 - 90				08/06/17 09:35	08/07/17 15:55	1

Client Sample ID: OC_SP210_INF_080417

Lab Sample ID: 440-189638-2

Matrix: Water

Date Collected: 08/04/17 09:59

Date Received: 08/04/17 13:44

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10	2.5	ug/L			08/08/17 01:43	10
1,1,1-Trichloroethane	ND		10	2.5	ug/L			08/08/17 01:43	10
1,1,2,2-Tetrachloroethane	ND		10	2.5	ug/L			08/08/17 01:43	10
1,1,2-Trichloroethane	ND		10	2.5	ug/L			08/08/17 01:43	10
1,1-Dichloroethane	ND		10	2.5	ug/L			08/08/17 01:43	10
1,1-Dichloroethene	29		10	2.5	ug/L			08/08/17 01:43	10
1,1-Dichloropropene	ND		10	2.5	ug/L			08/08/17 01:43	10
1,2,3-Trichlorobenzene	ND		10	4.0	ug/L			08/08/17 01:43	10
1,2,3-Trichloropropane	ND		10	4.0	ug/L			08/08/17 01:43	10
1,2,4-Trichlorobenzene	ND		10	4.0	ug/L			08/08/17 01:43	10
1,2,4-Trimethylbenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			08/08/17 01:43	10
1,2-Dichlorobenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
1,2-Dibromoethane (EDB)	ND		10	2.5	ug/L			08/08/17 01:43	10
1,2-Dichloroethane	6.7 J		10	2.5	ug/L			08/08/17 01:43	10
1,2-Dichloropropane	ND		10	2.5	ug/L			08/08/17 01:43	10

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Client Sample ID: OC_SP210_INF_080417

Lab Sample ID: 440-189638-2

Matrix: Water

Date Collected: 08/04/17 09:59

Date Received: 08/04/17 13:44

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
1,3-Dichlorobenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
1,3-Dichloropropane	ND		10	2.5	ug/L			08/08/17 01:43	10
1,4-Dichlorobenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
2,2-Dichloropropane	ND		10	4.0	ug/L			08/08/17 01:43	10
2-Chlorotoluene	ND		10	2.5	ug/L			08/08/17 01:43	10
4-Chlorotoluene	ND		10	2.5	ug/L			08/08/17 01:43	10
p-Isopropyltoluene	ND		10	2.5	ug/L			08/08/17 01:43	10
Benzene	ND		5.0	2.5	ug/L			08/08/17 01:43	10
Bromobenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
Bromochloromethane	ND		10	2.5	ug/L			08/08/17 01:43	10
Bromodichloromethane	ND		10	2.5	ug/L			08/08/17 01:43	10
Bromoform	ND		10	4.0	ug/L			08/08/17 01:43	10
Bromomethane	ND		10	2.5	ug/L			08/08/17 01:43	10
Carbon tetrachloride	ND		5.0	2.5	ug/L			08/08/17 01:43	10
Chlorobenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
Chloroethane	ND		10	4.0	ug/L			08/08/17 01:43	10
Chloroform	17		10	2.5	ug/L			08/08/17 01:43	10
Chloromethane	ND		10	2.5	ug/L			08/08/17 01:43	10
cis-1,2-Dichloroethene	ND		10	2.5	ug/L			08/08/17 01:43	10
cis-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/08/17 01:43	10
Dibromochloromethane	ND		10	2.5	ug/L			08/08/17 01:43	10
Dibromomethane	ND		10	2.5	ug/L			08/08/17 01:43	10
Dichlorodifluoromethane	ND		10	4.0	ug/L			08/08/17 01:43	10
Ethylbenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
Hexachlorobutadiene	ND		10	2.5	ug/L			08/08/17 01:43	10
Isopropylbenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
m,p-Xylene	ND		10	5.0	ug/L			08/08/17 01:43	10
Methylene Chloride	ND		50	8.8	ug/L			08/08/17 01:43	10
Methyl-t-Butyl Ether (MTBE)	ND		10	2.5	ug/L			08/08/17 01:43	10
Naphthalene	ND		10	4.0	ug/L			08/08/17 01:43	10
n-Butylbenzene	ND		10	4.0	ug/L			08/08/17 01:43	10
N-Propylbenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
o-Xylene	ND		10	2.5	ug/L			08/08/17 01:43	10
sec-Butylbenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
Styrene	ND		10	2.5	ug/L			08/08/17 01:43	10
tert-Butylbenzene	ND		10	2.5	ug/L			08/08/17 01:43	10
Tetrachloroethene	470		10	2.5	ug/L			08/08/17 01:43	10
Toluene	ND		10	2.5	ug/L			08/08/17 01:43	10
trans-1,2-Dichloroethene	ND		10	2.5	ug/L			08/08/17 01:43	10
trans-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/08/17 01:43	10
Trichloroethene	27		10	2.5	ug/L			08/08/17 01:43	10
Trichlorofluoromethane	16		10	2.5	ug/L			08/08/17 01:43	10
Vinyl chloride	ND		5.0	2.5	ug/L			08/08/17 01:43	10
Acetone	ND		100	100	ug/L			08/08/17 01:43	10
1,1,2-Trichloro-1,2,2-trifluoroethane	110		50	5.0	ug/L			08/08/17 01:43	10
Total Volatile Organic Compounds	ND		1500	750	ug/L			08/08/17 01:43	10

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Client Sample ID: OC_SP210_INF_080417

Lab Sample ID: 440-189638-2

Matrix: Water

Date Collected: 08/04/17 09:59
 Date Received: 08/04/17 13:44

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		80 - 120		08/08/17 01:43	10
Dibromofluoromethane (Surr)	108		76 - 132		08/08/17 01:43	10
Toluene-d8 (Surr)	84		80 - 128		08/08/17 01:43	10
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		08/08/17 01:43	10

Client Sample ID: OC_TB_080417

Lab Sample ID: 440-189638-3

Matrix: Water

Date Collected: 08/04/17 09:49
 Date Received: 08/04/17 13:44

Method: 8260B - Volatile Organic Compounds (GC/MS)	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/17 01:13	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/08/17 01:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/17 01:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/08/17 01:13	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/08/17 01:13	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Benzene	ND		0.50	0.25	ug/L			08/08/17 01:13	1
Bromobenzene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Bromoform	ND		1.0	0.40	ug/L			08/08/17 01:13	1
Bromomethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/08/17 01:13	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Chloroethane	ND		1.0	0.40	ug/L			08/08/17 01:13	1
Chloroform	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Chloromethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/17 01:13	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/17 01:13	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1
Dibromomethane	ND		1.0	0.25	ug/L			08/08/17 01:13	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Client Sample ID: OC_TB_080417

Lab Sample ID: 440-189638-3

Matrix: Water

Date Collected: 08/04/17 09:49
 Date Received: 08/04/17 13:44

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.40	ug/L		08/08/17 01:13		1
Ethylbenzene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Hexachlorobutadiene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Isopropylbenzene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
m,p-Xylene	ND		1.0	0.50	ug/L		08/08/17 01:13		1
Methylene Chloride	ND		5.0	0.88	ug/L		08/08/17 01:13		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Naphthalene	ND		1.0	0.40	ug/L		08/08/17 01:13		1
n-Butylbenzene	ND		1.0	0.40	ug/L		08/08/17 01:13		1
N-Propylbenzene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
o-Xylene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
sec-Butylbenzene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Styrene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
tert-Butylbenzene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Tetrachloroethene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Toluene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L		08/08/17 01:13		1
Trichloroethene	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Trichlorofluoromethane	ND		1.0	0.25	ug/L		08/08/17 01:13		1
Vinyl chloride	ND		0.50	0.25	ug/L		08/08/17 01:13		1
Acetone	ND		10	10	ug/L		08/08/17 01:13		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L		08/08/17 01:13		1
Total Volatile Organic Compounds	ND		150	75	ug/L		08/08/17 01:13		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		80 - 120		08/08/17 01:13	1
Dibromofluoromethane (Surr)	108		76 - 132		08/08/17 01:13	1
Toluene-d8 (Surr)	86		80 - 128		08/08/17 01:13	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		08/08/17 01:13	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-189612-A-4 MS	Matrix Spike	87	98	83	93
440-189612-A-4 MSD	Matrix Spike Duplicate	86	98	82	92
440-189638-1	OC_SP220B_EFF_080417	85	107	87	107
440-189638-2	OC_SP210_INF_080417	86	108	84	106
440-189638-3	OC_TB_080417	87	108	86	108
LCS 440-421772/5	Lab Control Sample	85	98	88	93
MB 440-421772/4	Method Blank	84	105	88	104

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		14DD8 (36-90)	
440-189631-I-5-A MS	Matrix Spike	57	
440-189631-I-5-B MSD	Matrix Spike Duplicate	56	
440-189638-1	OC_SP220B_EFF_080417	59	
LCS 440-421578/2-A	Lab Control Sample	67	
MB 440-421578/1-A	Method Blank	64	

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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TestAmerica Irvine

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Client Sample ID: OC_SP220B_EFF_080417

Lab Sample ID: 440-189638-1

Matrix: Water

Date Collected: 08/04/17 09:57

Date Received: 08/04/17 13:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	421772	08/08/17 00:44	WK	TAL IRV
Total/NA	Prep	3520C			1050 mL	1.0 mL	421578	08/06/17 09:35	JS1	TAL IRV
Total/NA	Analysis	8270C SIM		1			421703	08/07/17 15:55	AI	TAL IRV

Client Sample ID: OC_SP210_INF_080417

Lab Sample ID: 440-189638-2

Matrix: Water

Date Collected: 08/04/17 09:59

Date Received: 08/04/17 13:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	421772	08/08/17 01:43	WK	TAL IRV

Client Sample ID: OC_TB_080417

Lab Sample ID: 440-189638-3

Matrix: Water

Date Collected: 08/04/17 09:49

Date Received: 08/04/17 13:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	421772	08/08/17 01:13	WK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-421772/4

Matrix: Water

Analysis Batch: 421772

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/07/17 19:18	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/07/17 19:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/07/17 19:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/07/17 19:18	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/07/17 19:18	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Benzene	ND		0.50	0.25	ug/L			08/07/17 19:18	1
Bromobenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Bromoform	ND		1.0	0.40	ug/L			08/07/17 19:18	1
Bromomethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/07/17 19:18	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Chloroethane	ND		1.0	0.40	ug/L			08/07/17 19:18	1
Chloroform	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Chloromethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/07/17 19:18	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Dibromomethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/07/17 19:18	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/07/17 19:18	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/07/17 19:18	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Naphthalene	ND		1.0	0.40	ug/L			08/07/17 19:18	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/07/17 19:18	1

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QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-421772/4

Matrix: Water

Analysis Batch: 421772

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
o-Xylene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Styrene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Toluene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/07/17 19:18	1
Trichloroethene	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/07/17 19:18	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/07/17 19:18	1
Acetone	ND		10	10	ug/L			08/07/17 19:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/07/17 19:18	1
Total Volatile Organic Compounds	ND		150	75	ug/L			08/07/17 19:18	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		80 - 120		08/07/17 19:18	1
Dibromofluoromethane (Surr)	105		76 - 132		08/07/17 19:18	1
Toluene-d8 (Surr)	88		80 - 128		08/07/17 19:18	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		08/07/17 19:18	1

Lab Sample ID: LCS 440-421772/5

Matrix: Water

Analysis Batch: 421772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1,1,2-Tetrachloroethane	25.0	28.3		ug/L		113	60 - 141	
1,1,1-Trichloroethane	25.0	28.5		ug/L		114	70 - 130	
1,1,2,2-Tetrachloroethane	25.0	23.0		ug/L		92	63 - 130	
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	70 - 130	
1,1-Dichloroethane	25.0	24.5		ug/L		98	64 - 130	
1,1-Dichloroethene	25.0	25.7		ug/L		103	70 - 130	
1,1-Dichloropropene	25.0	27.3		ug/L		109	70 - 130	
1,2,3-Trichlorobenzene	25.0	28.0		ug/L		112	60 - 140	
1,2,3-Trichloropropane	25.0	28.1		ug/L		112	63 - 130	
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		108	60 - 140	
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		98	70 - 135	
1,2-Dibromo-3-Chloropropane	25.0	26.8		ug/L		107	52 - 140	
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130	
1,2-Dibromoethane (EDB)	25.0	26.5		ug/L		106	70 - 130	
1,2-Dichloroethane	25.0	26.0		ug/L		104	57 - 138	
1,2-Dichloropropane	25.0	22.3		ug/L		89	67 - 130	
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	70 - 136	
1,3-Dichlorobenzene	25.0	25.4		ug/L		101	70 - 130	
1,3-Dichloropropane	25.0	24.3		ug/L		97	70 - 130	
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	
2,2-Dichloropropane	25.0	27.5		ug/L		110	68 - 141	

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QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-421772/5

Matrix: Water

Analysis Batch: 421772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier				Limits	
2-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130	
4-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130	
p-Isopropyltoluene	25.0	27.0		ug/L		108	70 - 132	
Benzene	25.0	24.5		ug/L		98	68 - 130	
Bromobenzene	25.0	26.2		ug/L		105	70 - 130	
Bromochloromethane	25.0	29.0		ug/L		116	70 - 130	
Bromodichloromethane	25.0	25.9		ug/L		104	70 - 132	
Bromoform	25.0	31.7		ug/L		127	60 - 148	
Bromomethane	25.0	26.9		ug/L		108	64 - 139	
Carbon tetrachloride	25.0	29.9		ug/L		120	60 - 150	
Chlorobenzene	25.0	25.9		ug/L		104	70 - 130	
Chloroethane	25.0	26.5		ug/L		106	64 - 135	
Chloroform	25.0	25.6		ug/L		102	70 - 130	
Chloromethane	25.0	24.9		ug/L		99	47 - 140	
cis-1,2-Dichloroethene	25.0	25.6		ug/L		103	70 - 133	
cis-1,3-Dichloropropene	25.0	24.6		ug/L		98	70 - 133	
Dibromochloromethane	25.0	28.3		ug/L		113	69 - 145	
Dibromomethane	25.0	26.3		ug/L		105	70 - 130	
Dichlorodifluoromethane	25.0	30.4		ug/L		122	29 - 150	
Ethylbenzene	25.0	26.8		ug/L		107	70 - 130	
Hexachlorobutadiene	25.0	28.0		ug/L		112	10 - 150	
Isopropylbenzene	25.0	30.4		ug/L		122	70 - 136	
m,p-Xylene	25.0	28.4		ug/L		114	70 - 130	
Methylene Chloride	25.0	24.4		ug/L		98	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	25.9		ug/L		104	63 - 131	
Naphthalene	25.0	26.6		ug/L		106	60 - 140	
n-Butylbenzene	25.0	23.0		ug/L		92	65 - 150	
N-Propylbenzene	25.0	26.5		ug/L		106	67 - 139	
o-Xylene	25.0	28.2		ug/L		113	70 - 130	
sec-Butylbenzene	25.0	24.2		ug/L		97	70 - 138	
Styrene	25.0	26.4		ug/L		106	70 - 134	
tert-Butylbenzene	25.0	27.4		ug/L		110	70 - 130	
Tetrachloroethene	25.0	30.1		ug/L		120	70 - 130	
Toluene	25.0	27.3		ug/L		109	70 - 130	
trans-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 130	
trans-1,3-Dichloropropene	25.0	25.4		ug/L		102	70 - 132	
Trichloroethene	25.0	28.5		ug/L		114	70 - 130	
Trichlorofluoromethane	25.0	29.7		ug/L		119	60 - 150	
Vinyl chloride	25.0	26.0		ug/L		104	59 - 133	
Acetone	25.0	33.2		ug/L		133	10 - 150	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		80 - 120
Dibromofluoromethane (Surr)	98		76 - 132
Toluene-d8 (Surr)	88		80 - 128
1,2-Dichloroethane-d4 (Surr)	93		70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189612-A-4 MS

Matrix: Water

Analysis Batch: 421772

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		2500	2750		ug/L		110	60 - 149
1,1,1-Trichloroethane	ND		2500	2850		ug/L		114	70 - 130
1,1,2,2-Tetrachloroethane	ND		2500	2180		ug/L		87	63 - 130
1,1,2-Trichloroethane	ND		2500	2250		ug/L		90	70 - 130
1,1-Dichloroethane	ND		2500	2470		ug/L		99	65 - 130
1,1-Dichloroethene	ND		2500	2590		ug/L		104	70 - 130
1,1-Dichloropropene	ND		2500	2870		ug/L		115	64 - 130
1,2,3-Trichlorobenzene	ND		2500	2930		ug/L		117	60 - 140
1,2,3-Trichloropropane	ND		2500	2500		ug/L		100	60 - 130
1,2,4-Trichlorobenzene	ND		2500	2890		ug/L		116	60 - 140
1,2,4-Trimethylbenzene	ND		2500	2530		ug/L		101	70 - 130
1,2-Dibromo-3-Chloropropane	ND		2500	2380		ug/L		95	48 - 140
1,2-Dichlorobenzene	ND		2500	2710		ug/L		108	70 - 130
1,2-Dibromoethane (EDB)	ND		2500	2470		ug/L		99	70 - 131
1,2-Dichloroethane	ND		2500	2570		ug/L		103	56 - 146
1,2-Dichloropropane	ND		2500	2330		ug/L		93	69 - 130
1,3,5-Trimethylbenzene	ND		2500	2590		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		2500	2590		ug/L		104	70 - 130
1,3-Dichloropropane	ND		2500	2200		ug/L		88	70 - 130
1,4-Dichlorobenzene	ND		2500	2580		ug/L		103	70 - 130
2,2-Dichloropropane	ND		2500	2830		ug/L		113	69 - 138
2-Chlorotoluene	ND		2500	2520		ug/L		101	70 - 130
4-Chlorotoluene	ND		2500	2550		ug/L		102	70 - 130
p-Isopropyltoluene	ND		2500	2780		ug/L		111	70 - 130
Benzene	ND		2500	2550		ug/L		102	66 - 130
Bromobenzene	ND		2500	2660		ug/L		106	70 - 130
Bromochloromethane	ND		2500	2910		ug/L		117	70 - 130
Bromodichloromethane	ND		2500	2630		ug/L		105	70 - 138
Bromoform	ND		2500	2970		ug/L		119	59 - 150
Bromomethane	ND		2500	2640		ug/L		106	62 - 131
Carbon tetrachloride	ND		2500	2980		ug/L		119	60 - 150
Chlorobenzene	ND		2500	2490		ug/L		100	70 - 130
Chloroethane	ND		2500	2610		ug/L		104	68 - 130
Chloroform	ND		2500	2570		ug/L		103	70 - 130
Chloromethane	ND		2500	2440		ug/L		98	39 - 144
cis-1,2-Dichloroethene	ND		2500	2650		ug/L		106	70 - 130
cis-1,3-Dichloropropene	ND		2500	2350		ug/L		94	70 - 133
Dibromochloromethane	ND		2500	2630		ug/L		105	70 - 148
Dibromomethane	ND		2500	2480		ug/L		99	70 - 130
Dichlorodifluoromethane	ND		2500	2850		ug/L		114	25 - 142
Ethylbenzene	ND		2500	2570		ug/L		103	70 - 130
Hexachlorobutadiene	ND		2500	2950		ug/L		118	10 - 150
Isopropylbenzene	ND		2500	2900		ug/L		116	70 - 132
m,p-Xylene	ND		2500	2710		ug/L		109	70 - 133
Methylene Chloride	ND		2500	2440		ug/L		98	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		2500	2640		ug/L		106	70 - 130
Naphthalene	ND		2500	2610		ug/L		104	60 - 140
n-Butylbenzene	ND		2500	2390		ug/L		95	61 - 149

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189612-A-4 MS

Matrix: Water

Analysis Batch: 421772

**Client Sample ID: Matrix Spike
Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
N-Propylbenzene	ND		2500	2680		ug/L		107	66 - 135
o-Xylene	ND		2500	2740		ug/L		109	70 - 133
sec-Butylbenzene	ND		2500	2480		ug/L		99	67 - 134
Styrene	ND		2500	2620		ug/L		105	29 - 150
tert-Butylbenzene	ND		2500	2810		ug/L		113	70 - 130
Tetrachloroethene	ND		2500	2880		ug/L		115	70 - 137
Toluene	ND		2500	2550		ug/L		102	70 - 130
trans-1,2-Dichloroethene	ND		2500	2620		ug/L		105	70 - 130
trans-1,3-Dichloropropene	ND		2500	2390		ug/L		95	70 - 138
Trichloroethene	ND		2500	2830		ug/L		113	70 - 130
Trichlorofluoromethane	ND		2500	2940		ug/L		117	60 - 150
Vinyl chloride	ND		2500	2590		ug/L		104	50 - 137
Acetone	4100		2500	6360		ug/L		91	10 - 150
<hr/>									
Surrogate	MS		MS		Limits				
	Recovery		Qualifier						
4-Bromofluorobenzene (Surr)	87				80 - 120				
Dibromofluoromethane (Surr)	98				76 - 132				
Toluene-d8 (Surr)	83				80 - 128				
1,2-Dichloroethane-d4 (Surr)	93				70 - 130				

Lab Sample ID: 440-189612-A-4 MSD

Matrix: Water

Analysis Batch: 421772

**Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	ND		2500	2720		ug/L		109	60 - 149	1	20
1,1,1-Trichloroethane	ND		2500	2850		ug/L		114	70 - 130	0	20
1,1,2,2-Tetrachloroethane	ND		2500	2150		ug/L		86	63 - 130	1	30
1,1,2-Trichloroethane	ND		2500	2200		ug/L		88	70 - 130	2	25
1,1-Dichloroethane	ND		2500	2420		ug/L		97	65 - 130	2	20
1,1-Dichloroethene	ND		2500	2640		ug/L		105	70 - 130	2	20
1,1-Dichloropropene	ND		2500	2830		ug/L		113	64 - 130	1	20
1,2,3-Trichlorobenzene	ND		2500	2930		ug/L		117	60 - 140	0	20
1,2,3-Trichloropropane	ND		2500	2500		ug/L		100	60 - 130	0	30
1,2,4-Trichlorobenzene	ND		2500	2860		ug/L		114	60 - 140	1	20
1,2,4-Trimethylbenzene	ND		2500	2490		ug/L		100	70 - 130	2	25
1,2-Dibromo-3-Chloropropane	ND		2500	2410		ug/L		96	48 - 140	1	30
1,2-Dichlorobenzene	ND		2500	2680		ug/L		107	70 - 130	1	20
1,2-Dibromoethane (EDB)	ND		2500	2410		ug/L		96	70 - 131	3	25
1,2-Dichloroethane	ND		2500	2600		ug/L		104	56 - 146	1	20
1,2-Dichloropropane	ND		2500	2270		ug/L		91	69 - 130	2	20
1,3,5-Trimethylbenzene	ND		2500	2550		ug/L		102	70 - 130	2	20
1,3-Dichlorobenzene	ND		2500	2560		ug/L		102	70 - 130	1	20
1,3-Dichloropropane	ND		2500	2150		ug/L		86	70 - 130	2	25
1,4-Dichlorobenzene	ND		2500	2540		ug/L		102	70 - 130	1	20
2,2-Dichloropropane	ND		2500	2830		ug/L		113	69 - 138	0	25
2-Chlorotoluene	ND		2500	2470		ug/L		99	70 - 130	2	20
4-Chlorotoluene	ND		2500	2550		ug/L		102	70 - 130	0	20

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189612-A-4 MSD

Matrix: Water

Analysis Batch: 421772

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
p-Isopropyltoluene	ND		2500	2750		ug/L		110	70 - 130	1	20
Benzene	ND		2500	2520		ug/L		101	66 - 130	1	20
Bromobenzene	ND		2500	2690		ug/L		108	70 - 130	1	20
Bromoform	ND		2500	2930		ug/L		117	70 - 130	1	25
Bromochloromethane	ND		2500	2630		ug/L		105	70 - 138	0	20
Bromodichloromethane	ND		2500	2960		ug/L		118	59 - 150	0	25
Bromomethane	ND		2500	2630		ug/L		105	62 - 131	0	25
Carbon tetrachloride	ND		2500	2990		ug/L		120	60 - 150	0	25
Chlorobenzene	ND		2500	2430		ug/L		97	70 - 130	2	20
Chloroethane	ND		2500	2550		ug/L		102	68 - 130	2	25
Chloroform	ND		2500	2590		ug/L		104	70 - 130	1	20
Chloromethane	ND		2500	2430		ug/L		97	39 - 144	1	25
cis-1,2-Dichloroethene	ND		2500	2580		ug/L		103	70 - 130	3	20
cis-1,3-Dichloropropene	ND		2500	2340		ug/L		94	70 - 133	1	20
Dibromochloromethane	ND		2500	2580		ug/L		103	70 - 148	2	25
Dibromomethane	ND		2500	2480		ug/L		99	70 - 130	0	25
Dichlorodifluoromethane	ND		2500	2920		ug/L		117	25 - 142	2	30
Ethylbenzene	ND		2500	2530		ug/L		101	70 - 130	2	20
Hexachlorobutadiene	ND		2500	2880		ug/L		115	10 - 150	2	20
Isopropylbenzene	ND		2500	2850		ug/L		114	70 - 132	2	20
m,p-Xylene	ND		2500	2660		ug/L		106	70 - 133	2	25
Methylene Chloride	ND		2500	2440		ug/L		98	52 - 130	0	20
Methyl-t-Butyl Ether (MTBE)	ND		2500	2680		ug/L		107	70 - 130	2	25
Naphthalene	ND		2500	2730		ug/L		109	60 - 140	5	30
n-Butylbenzene	ND		2500	2370		ug/L		95	61 - 149	1	20
N-Propylbenzene	ND		2500	2630		ug/L		105	66 - 135	2	20
o-Xylene	ND		2500	2670		ug/L		107	70 - 133	2	20
sec-Butylbenzene	ND		2500	2440		ug/L		97	67 - 134	2	20
Styrene	ND		2500	2580		ug/L		103	29 - 150	2	35
tert-Butylbenzene	ND		2500	2810		ug/L		112	70 - 130	0	20
Tetrachloroethene	ND		2500	2850		ug/L		114	70 - 137	1	20
Toluene	ND		2500	2510		ug/L		101	70 - 130	2	20
trans-1,2-Dichloroethene	ND		2500	2650		ug/L		106	70 - 130	1	20
trans-1,3-Dichloropropene	ND		2500	2390		ug/L		96	70 - 138	0	25
Trichloroethene	ND		2500	2840		ug/L		113	70 - 130	0	20
Trichlorofluoromethane	ND		2500	2900		ug/L		116	60 - 150	1	25
Vinyl chloride	ND		2500	2610		ug/L		104	50 - 137	1	30
Acetone	4100		2500	5980		ug/L		76	10 - 150	6	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		80 - 120
Dibromofluoromethane (Surr)	98		76 - 132
Toluene-d8 (Surr)	82		80 - 128
1,2-Dichloroethane-d4 (Surr)	92		70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.
 Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-421578/1-A

Matrix: Water

Analysis Batch: 421703

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 421578

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	ND		0.49	0.098	ug/L		08/06/17 09:35	08/07/17 14:04	1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
1,4-Dioxane-d8 (Surr)	64		36 - 90	08/06/17 09:35	08/07/17 14:04				

Lab Sample ID: LCS 440-421578/2-A

Matrix: Water

Analysis Batch: 421703

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 421578

%Rec.

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits		
	Added	Result	Qualifier						
1,4-Dioxane	1.96	1.29		ug/L		66	36 - 120		
Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
1,4-Dioxane-d8 (Surr)	67		36 - 90	08/06/17 09:35	08/07/17 14:04				

Lab Sample ID: 440-189631-I-5-A MS

Matrix: Water

Analysis Batch: 421703

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 421578

%Rec.

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,4-Dioxane	54		1.94	111	E 4	ug/L		2963	12 - 100
Surrogate	MS	MS	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
1,4-Dioxane-d8 (Surr)	57		36 - 90	08/06/17 09:35	08/07/17 14:04				

Lab Sample ID: 440-189631-I-5-B MSD

Matrix: Water

Analysis Batch: 421703

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 421578

%Rec.

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,4-Dioxane	54		1.95	115	E 4	ug/L		3123	12 - 100	3	35
Surrogate	MSD	MSD	Limits	Prepared	Analyzed	Dil Fac					
	%Recovery	Qualifier									
1,4-Dioxane-d8 (Surr)	56		36 - 90	08/06/17 09:35	08/07/17 14:04						

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

GC/MS VOA

Analysis Batch: 421772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189638-1	OC_SP220B_EFF_080417	Total/NA	Water	8260B	
440-189638-2	OC_SP210_INF_080417	Total/NA	Water	8260B	
440-189638-3	OC_TB_080417	Total/NA	Water	8260B	
MB 440-421772/4	Method Blank	Total/NA	Water	8260B	
LCS 440-421772/5	Lab Control Sample	Total/NA	Water	8260B	
440-189612-A-4 MS	Matrix Spike	Total/NA	Water	8260B	
440-189612-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 421578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189638-1	OC_SP220B_EFF_080417	Total/NA	Water	3520C	
MB 440-421578/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-421578/2-A	Lab Control Sample	Total/NA	Water	3520C	
440-189631-I-5-A MS	Matrix Spike	Total/NA	Water	3520C	
440-189631-I-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	

Analysis Batch: 421703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189638-1	OC_SP220B_EFF_080417	Total/NA	Water	8270C SIM	421578
MB 440-421578/1-A	Method Blank	Total/NA	Water	8270C SIM	421578
LCS 440-421578/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	421578
440-189631-I-5-A MS	Matrix Spike	Total/NA	Water	8270C SIM	421578
440-189631-I-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM	421578

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

☒	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-189638-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312017-3	07-31-18 *
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

TestAmerica Irvine
 17461 Derian Ave
 Suite 100
 Irvine, CA 92614
 phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:							Site Contact: Khalid Azhar Date: 8/4/2017 COC No:				
Client Contact		Project Manager: Trent Henderson Tel/Fax: 949 453 1045/949 453 1047			Lab Contact: Danielle Roberts Carrier:						
De Maximis - Jaime Dinello 1322 Scott St., Suite 104 San Diego, CA 92106 (562) 756-8149		Analysis Turnaround Time									
		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS									
		TAT if different from Below <u>STD</u>									
		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day									
Project Name: Omega Chemical - GWTS Monthly Site: Omega Chemical P O #:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	EPA 8270C - 1A Dilution	ERDA 2898-BR - VOCs + Traceons	ERDA 2898-MS MSDS (Y/N)	Filled Sample Stamp (Y/N)	Sample Specific Notes:
OC_SP220B_EFF_080417		8/4/2017	0957	Grab	GW	5	x	x			
OC_SP210_INF_080417		8/4/2017	0959	Grab	GW	3	x				
OC_TB_080417		8/4/2017	0949		H2O	3	x				
 440-189638 Chain of Custody											
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				
							<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			Cooler Temp. (°C): Obs'd: <u>3.6</u> Corr'd: <u>3.9</u> Therm ID No.: <u>12-85</u>						
Relinquished by <u>Paul J. Rocke</u>		Company: <u>JHA</u>		Date/Time: <u>8/4/17 13:44</u>	Received by:		Company:		Date/Time:		
Relinquished by <u> </u>		Company: <u> </u>		Date/Time: <u> </u>	Received by: <u> </u>		Company: <u> </u>		Date/Time: <u> </u>		
Relinquished by <u> </u>		Company: <u> </u>		Date/Time: <u> </u>	Received in Laboratory by: <u> </u>		Company: <u> </u>		Date/Time: <u> </u>		

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-189638-1

Login Number: 189638

List Source: TestAmerica Irvine

List Number: 1

Creator: Garcia, Veronica G

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		
The cooler's custody seal, if present, is intact.	N/A	Not present	
Sample custody seals, if present, are intact.	N/A	Not Present	
The cooler or samples do not appear to have been compromised or tampered with.	True		
Samples were received on ice.	True		
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True		
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
Is the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		
Samples are received within Holding Time (excluding tests with immediate HTs)	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-189727-1

Client Project/Site: Omega Chemical -GW/Semi Annual
Revision: 2

For:

de maximis, inc.

2365 Northside Drive, Suite C-100

San Diego, California 92108

Attn: Jaime Dinello

Authorized for release by:

9/6/2017 12:40:53 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-189727-1	OC_GW_DPE-11D_20170807	Water	08/07/17 12:00	08/07/17 17:40
440-189727-2	OC_GW_DPE-10D_20170807	Water	08/07/17 11:55	08/07/17 17:40
440-189727-3	OC_GW_DPE-13D_20170807	Water	08/07/17 11:31	08/07/17 17:40
440-189727-4	OC_GW_DPE-8_20170807	Water	08/07/17 11:10	08/07/17 17:40
440-189727-5	OC_GW_DPE-7D_20170807	Water	08/07/17 10:48	08/07/17 17:40
440-189727-6	OC_GW_DPE-5_20170807	Water	08/07/17 10:18	08/07/17 17:40
440-189727-7	OC_GW_DPE-4_20170807	Water	08/07/17 10:00	08/07/17 17:40
440-189727-8	OC_GW_DPE-9_20170807	Water	08/07/17 09:25	08/07/17 17:40
440-189727-9	OC_GW_EW-5_20170807	Water	08/07/17 08:30	08/07/17 17:40
440-189727-10	OC_GW_EW-4_20170807	Water	08/07/17 08:14	08/07/17 17:40
440-189727-11	OC_GW_TB1_20170807	Water	08/07/17 07:00	08/07/17 17:40
440-189727-12	OC_GW_TB2_20170807	Water	08/07/17 07:00	08/07/17 17:40
440-189727-13	OC_GW_EW-3_20170807	Water	08/07/17 07:54	08/07/17 17:40

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TestAmerica Irvine

Case Narrative

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Job ID: 440-189727-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-189727-1

Comments

No additional comments.

Receipt

The samples were received on 8/7/2017 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.0° C and 1.2° C.

ID for OC_GW-TB_20170807 has been revised to OC_GW_TB1_20170807 and OC_GW-TB_20170807 has been revised to OC_GW-TB2_20170807 08/10/2017.

GC/MS VOA

Method(s) 8260B: Surrogate Toluene-d8 recovery for the following samples were outside the lower control limit:

OC_GW_DPE-5_20170807 (440-189727-6), (440-189727-A-6 MS) and (440-189727-A-6 MSD). Re-analysis was performed with concurring results.

Method(s) 8260B: Surrogate recovery for Toluene-d8 for the following samples was below control limits: OC_GW_DPE-4_20170807 (440-189727-7), OC_GW_DPE-9_20170807 (440-189727-8), OC_GW_DPE-5_20170807 (440-189727-9), OC_GW_EW-4_20170807 (440-189727-10), OC_GW_TB1_20170807 (440-189727-11), OC_GW_TB2_20170807 (440-189727-12) and OC_GW_EW-3_20170807 (440-189727-13). Evidence of matrix interference is present; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-421917 and analytical batch 440-422247. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-11D_20170807

Lab Sample ID: 440-189727-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	73		2.0	0.50	ug/L	2		8260B	Total/NA
1,1-Dichloroethane	2.2		2.0	0.50	ug/L	2		8260B	Total/NA
1,2-Dichloroethane	12		2.0	0.50	ug/L	2		8260B	Total/NA
1,1-Dichloroethene	140		2.0	0.50	ug/L	2		8260B	Total/NA
trans-1,2-Dichloroethene	0.89 J		2.0	0.50	ug/L	2		8260B	Total/NA
1,1,2-Trichloroethane	0.74 J		2.0	0.50	ug/L	2		8260B	Total/NA
Trichloroethene	91		2.0	0.50	ug/L	2		8260B	Total/NA
Trichlorofluoromethane	51		2.0	0.50	ug/L	2		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	150		10	1.0	ug/L	2		8260B	Total/NA
Tetrachloroethylene - DL	1100		10	2.5	ug/L	10		8260B	Total/NA
1,4-Dioxane	44		0.52	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_DPE-10D_20170807

Lab Sample ID: 440-189727-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	19		2.0	0.50	ug/L	2		8260B	Total/NA
1,1-Dichloroethane	0.74 J		2.0	0.50	ug/L	2		8260B	Total/NA
1,2-Dichloroethane	3.6		2.0	0.50	ug/L	2		8260B	Total/NA
1,1-Dichloroethene	85		2.0	0.50	ug/L	2		8260B	Total/NA
Trichloroethene	64		2.0	0.50	ug/L	2		8260B	Total/NA
Trichlorofluoromethane	44		2.0	0.50	ug/L	2		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	150		10	1.0	ug/L	2		8260B	Total/NA
Tetrachloroethylene - DL	660		10	2.5	ug/L	10		8260B	Total/NA
1,4-Dioxane	16		0.52	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_DPE-13D_20170807

Lab Sample ID: 440-189727-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.51 J		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	3.1		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	21		1.0	0.25	ug/L	1		8260B	Total/NA
Styrene	0.30 J		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethylene	47		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	15		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	11		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	10		0.52	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_DPE-8_20170807

Lab Sample ID: 440-189727-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.8		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.58 J		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.6		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethylene	73		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	5.6		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	2.7		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	24		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	8.5		0.52	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_DPE-7D_20170807

Lab Sample ID: 440-189727-5

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-7D_20170807 (Continued)

Lab Sample ID: 440-189727-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.29	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	33		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	120		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	39		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	12		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	28		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.12	J	0.51	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_DPE-5_20170807

Lab Sample ID: 440-189727-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	5.1		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.93	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	30		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	160		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	12		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	7.7		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	9.1		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	6.9		0.54	0.11	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_DPE-4_20170807

Lab Sample ID: 440-189727-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	12		2.0	0.50	ug/L	2		8260B	Total/NA
1,1-Dichloroethane	0.75	J	2.0	0.50	ug/L	2		8260B	Total/NA
1,2-Dichloroethane	9.4		2.0	0.50	ug/L	2		8260B	Total/NA
1,1-Dichloroethene	4.2		2.0	0.50	ug/L	2		8260B	Total/NA
1,1,2-Trichloroethane	2.3		2.0	0.50	ug/L	2		8260B	Total/NA
Trichloroethene	23		2.0	0.50	ug/L	2		8260B	Total/NA
Trichlorofluoromethane	3.7		2.0	0.50	ug/L	2		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	61		10	1.0	ug/L	2		8260B	Total/NA
Tetrachloroethene - DL	660		10	2.5	ug/L	10		8260B	Total/NA
1,4-Dioxane	75		0.51	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_DPE-9_20170807

Lab Sample ID: 440-189727-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	21		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.63	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	6.2		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	35		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	0.47	J	1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	28		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	19		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	56		5.0	0.50	ug/L	1		8260B	Total/NA
Tetrachloroethene - DL	480		5.0	1.3	ug/L	5		8260B	Total/NA
1,4-Dioxane	37		0.50	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_EW-5_20170807

Lab Sample ID: 440-189727-9

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_EW-5_20170807 (Continued)

Lab Sample ID: 440-189727-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	25		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	24		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	3.3		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	64		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	90		5.0	0.50	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_EW-4_20170807

Lab Sample ID: 440-189727-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	66		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	59		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	7.0		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	29		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	44		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.10	J	0.51	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_TB1_20170807

Lab Sample ID: 440-189727-11

No Detections.

Client Sample ID: OC_GW_TB2_20170807

Lab Sample ID: 440-189727-12

No Detections.

Client Sample ID: OC_GW_EW-3_20170807

Lab Sample ID: 440-189727-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.6		1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.0		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	97		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	170		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	22		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	33		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	54		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.55		0.51	0.10	ug/L	1		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-11D_20170807

Lab Sample ID: 440-189727-1

Matrix: Water

Date Collected: 08/07/17 12:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	20	ug/L			08/09/17 10:41	2
Benzene	ND		1.0	0.50	ug/L			08/09/17 10:41	2
Bromobenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Bromochloromethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Bromodichloromethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Bromoform	ND		2.0	0.80	ug/L			08/09/17 10:41	2
Bromomethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Carbon tetrachloride	ND		1.0	0.50	ug/L			08/09/17 10:41	2
Chlorobenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Chloroethane	ND		2.0	0.80	ug/L			08/09/17 10:41	2
Chloroform	73		2.0	0.50	ug/L			08/09/17 10:41	2
Chloromethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
2-Chlorotoluene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
4-Chlorotoluene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
cis-1,2-Dichloroethene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
cis-1,3-Dichloropropene	ND		1.0	0.50	ug/L			08/09/17 10:41	2
Dibromochloromethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,2-Dibromo-3-Chloropropane	ND		10	1.0	ug/L			08/09/17 10:41	2
1,2-Dibromoethane (EDB)	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Dibromomethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,2-Dichlorobenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,3-Dichlorobenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,4-Dichlorobenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Dichlorodifluoromethane	ND		2.0	0.80	ug/L			08/09/17 10:41	2
1,1-Dichloroethane	2.2		2.0	0.50	ug/L			08/09/17 10:41	2
1,2-Dichloroethane	12		2.0	0.50	ug/L			08/09/17 10:41	2
1,1-Dichloroethene	140		2.0	0.50	ug/L			08/09/17 10:41	2
1,2-Dichloropropane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,3-Dichloropropane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
2,2-Dichloropropane	ND		2.0	0.80	ug/L			08/09/17 10:41	2
1,1-Dichloropropene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Ethylbenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Hexachlorobutadiene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Isopropylbenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Methylene Chloride	ND		10	1.8	ug/L			08/09/17 10:41	2
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.50	ug/L			08/09/17 10:41	2
m,p-Xylene	ND		2.0	1.0	ug/L			08/09/17 10:41	2
Naphthalene	ND		2.0	0.80	ug/L			08/09/17 10:41	2
n-Butylbenzene	ND		2.0	0.80	ug/L			08/09/17 10:41	2
N-Propylbenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
o-Xylene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
p-Isopropyltoluene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
sec-Butylbenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Styrene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
tert-Butylbenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,1,1,2-Tetrachloroethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Toluene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
trans-1,2-Dichloroethene	0.89 J		2.0	0.50	ug/L			08/09/17 10:41	2

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-11D_20170807

Lab Sample ID: 440-189727-1

Matrix: Water

Date Collected: 08/07/17 12:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.50	ug/L			08/09/17 10:41	2
1,2,3-Trichlorobenzene	ND		2.0	0.80	ug/L			08/09/17 10:41	2
1,2,4-Trichlorobenzene	ND		2.0	0.80	ug/L			08/09/17 10:41	2
1,1,1-Trichloroethane	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,1,2-Trichloroethane	0.74	J	2.0	0.50	ug/L			08/09/17 10:41	2
Trichloroethene	91		2.0	0.50	ug/L			08/09/17 10:41	2
Trichlorofluoromethane	51		2.0	0.50	ug/L			08/09/17 10:41	2
1,2,3-Trichloropropane	ND		2.0	0.80	ug/L			08/09/17 10:41	2
1,1,2-Trichloro-1,2,2-trifluoroethane	150		10	1.0	ug/L			08/09/17 10:41	2
1,2,4-Trimethylbenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
1,3,5-Trimethylbenzene	ND		2.0	0.50	ug/L			08/09/17 10:41	2
Vinyl chloride	ND		1.0	0.50	ug/L			08/09/17 10:41	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		80 - 120					08/09/17 10:41	2
Dibromofluoromethane (Surr)	116		76 - 132					08/09/17 10:41	2
Toluene-d8 (Surr)	100		80 - 128					08/09/17 10:41	2
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					08/09/17 10:41	2

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1100		10	2.5	ug/L			08/09/17 11:10	10
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/09/17 11:10	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		80 - 120					08/09/17 11:10	10
Dibromofluoromethane (Surr)	116		76 - 132					08/09/17 11:10	10
Toluene-d8 (Surr)	99		80 - 128					08/09/17 11:10	10
1,2-Dichloroethane-d4 (Surr)	115		70 - 130					08/09/17 11:10	10

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		500	350	ug/L			08/14/17 11:07	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		80 - 120					08/14/17 11:07	2
Dibromofluoromethane (Surr)	102		76 - 132					08/14/17 11:07	2
Toluene-d8 (Surr)	95		80 - 128					08/14/17 11:07	2
1,2-Dichloroethane-d4 (Surr)	93		70 - 130					08/14/17 11:07	2

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	44		0.52	0.10	ug/L		08/08/17 10:17	08/09/17 16:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	50		36 - 90				08/08/17 10:17	08/09/17 16:40	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-10D_20170807

Lab Sample ID: 440-189727-2

Matrix: Water

Date Collected: 08/07/17 11:55

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	20	ug/L			08/09/17 16:05	2
Benzene	ND		1.0	0.50	ug/L			08/09/17 16:05	2
Bromobenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Bromochloromethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Bromodichloromethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Bromoform	ND		2.0	0.80	ug/L			08/09/17 16:05	2
Bromomethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Carbon tetrachloride	ND		1.0	0.50	ug/L			08/09/17 16:05	2
Chlorobenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Chloroethane	ND		2.0	0.80	ug/L			08/09/17 16:05	2
Chloroform	19		2.0	0.50	ug/L			08/09/17 16:05	2
Chloromethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
2-Chlorotoluene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
4-Chlorotoluene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
cis-1,2-Dichloroethene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
cis-1,3-Dichloropropene	ND		1.0	0.50	ug/L			08/09/17 16:05	2
Dibromochloromethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,2-Dibromo-3-Chloropropane	ND		10	1.0	ug/L			08/09/17 16:05	2
1,2-Dibromoethane (EDB)	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Dibromomethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,2-Dichlorobenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,3-Dichlorobenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,4-Dichlorobenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Dichlorodifluoromethane	ND		2.0	0.80	ug/L			08/09/17 16:05	2
1,1-Dichloroethane	0.74 J		2.0	0.50	ug/L			08/09/17 16:05	2
1,2-Dichloroethane	3.6		2.0	0.50	ug/L			08/09/17 16:05	2
1,1-Dichloroethene	85		2.0	0.50	ug/L			08/09/17 16:05	2
1,2-Dichloropropane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,3-Dichloropropane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
2,2-Dichloropropane	ND		2.0	0.80	ug/L			08/09/17 16:05	2
1,1-Dichloropropene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Ethylbenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Hexachlorobutadiene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Isopropylbenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Methylene Chloride	ND		10	1.8	ug/L			08/09/17 16:05	2
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.50	ug/L			08/09/17 16:05	2
m,p-Xylene	ND		2.0	1.0	ug/L			08/09/17 16:05	2
Naphthalene	ND		2.0	0.80	ug/L			08/09/17 16:05	2
n-Butylbenzene	ND		2.0	0.80	ug/L			08/09/17 16:05	2
N-Propylbenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
o-Xylene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
p-Isopropyltoluene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
sec-Butylbenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Styrene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
tert-Butylbenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,1,1,2-Tetrachloroethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Toluene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
trans-1,2-Dichloroethene	ND		2.0	0.50	ug/L			08/09/17 16:05	2

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-10D_20170807

Lab Sample ID: 440-189727-2

Matrix: Water

Date Collected: 08/07/17 11:55

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	0.50	ug/L			08/09/17 16:05	2
1,2,3-Trichlorobenzene	ND		2.0	0.80	ug/L			08/09/17 16:05	2
1,2,4-Trichlorobenzene	ND		2.0	0.80	ug/L			08/09/17 16:05	2
1,1,1-Trichloroethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,1,2-Trichloroethane	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Trichloroethene	64		2.0	0.50	ug/L			08/09/17 16:05	2
Trichlorofluoromethane	44		2.0	0.50	ug/L			08/09/17 16:05	2
1,2,3-Trichloropropane	ND		2.0	0.80	ug/L			08/09/17 16:05	2
1,1,2-Trichloro-1,2,2-trifluoroethane	150		10	1.0	ug/L			08/09/17 16:05	2
1,2,4-Trimethylbenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
1,3,5-Trimethylbenzene	ND		2.0	0.50	ug/L			08/09/17 16:05	2
Vinyl chloride	ND		1.0	0.50	ug/L			08/09/17 16:05	2
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/09/17 16:05	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		80 - 120					08/09/17 16:05	2
Dibromofluoromethane (Surr)	117		76 - 132					08/09/17 16:05	2
Toluene-d8 (Surr)	97		80 - 128					08/09/17 16:05	2
1,2-Dichloroethane-d4 (Surr)	113		70 - 130					08/09/17 16:05	2

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	660		10	2.5	ug/L			08/09/17 16:35	10
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/09/17 16:35	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		80 - 120					08/09/17 16:35	10
Dibromofluoromethane (Surr)	117		76 - 132					08/09/17 16:35	10
Toluene-d8 (Surr)	96		80 - 128					08/09/17 16:35	10
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					08/09/17 16:35	10

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		500	350	ug/L			08/14/17 11:37	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120					08/14/17 11:37	2
Dibromofluoromethane (Surr)	99		76 - 132					08/14/17 11:37	2
Toluene-d8 (Surr)	94		80 - 128					08/14/17 11:37	2
1,2-Dichloroethane-d4 (Surr)	96		70 - 130					08/14/17 11:37	2

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	16		0.52	0.10	ug/L		08/08/17 10:17	08/09/17 17:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	63		36 - 90				08/08/17 10:17	08/09/17 17:02	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-13D_20170807

Lab Sample ID: 440-189727-3

Matrix: Water

Date Collected: 08/07/17 11:31

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/09/17 17:04	1
Benzene	ND		0.50	0.25	ug/L			08/09/17 17:04	1
Bromobenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Bromoform	ND		1.0	0.40	ug/L			08/09/17 17:04	1
Bromomethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/09/17 17:04	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Chloroethane	ND		1.0	0.40	ug/L			08/09/17 17:04	1
Chloroform	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Chloromethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/17 17:04	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/09/17 17:04	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Dibromomethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/09/17 17:04	1
1,1-Dichloroethane	0.51 J		1.0	0.25	ug/L			08/09/17 17:04	1
1,2-Dichloroethane	3.1		1.0	0.25	ug/L			08/09/17 17:04	1
1,1-Dichloroethene	21		1.0	0.25	ug/L			08/09/17 17:04	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/09/17 17:04	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/09/17 17:04	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/09/17 17:04	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/09/17 17:04	1
Naphthalene	ND		1.0	0.40	ug/L			08/09/17 17:04	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/09/17 17:04	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
o-Xylene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Styrene	0.30 J		1.0	0.25	ug/L			08/09/17 17:04	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Tetrachloroethene	47		1.0	0.25	ug/L			08/09/17 17:04	1
Toluene	ND		1.0	0.25	ug/L			08/09/17 17:04	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-13D_20170807

Lab Sample ID: 440-189727-3

Matrix: Water

Date Collected: 08/07/17 11:31

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/17 17:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/17 17:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/17 17:04	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Trichloroethene	15		1.0	0.25	ug/L			08/09/17 17:04	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/09/17 17:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	11		5.0	0.50	ug/L			08/09/17 17:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:04	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/09/17 17:04	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methanethiol	2.7	T J N	ug/L		2.69	74-93-1		08/09/17 17:04	1
Methane, dichlorofluoro-	14	T J N	ug/L		2.98	75-43-4		08/09/17 17:04	1
Unknown	23	T J	ug/L		3.37			08/09/17 17:04	1
Unknown	1500	T J	ug/L		5.92			08/09/17 17:04	1
Unknown	4.7	T J	ug/L		11.70			08/09/17 17:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		80 - 120					08/09/17 17:04	1
Dibromofluoromethane (Surr)	111		76 - 132					08/09/17 17:04	1
Toluene-d8 (Surr)	96		80 - 128					08/09/17 17:04	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 130					08/09/17 17:04	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		250	180	ug/L			08/14/17 12:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		80 - 120					08/14/17 12:06	1
Dibromofluoromethane (Surr)	101		76 - 132					08/14/17 12:06	1
Toluene-d8 (Surr)	95		80 - 128					08/14/17 12:06	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					08/14/17 12:06	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	10		0.52	0.10	ug/L		08/08/17 10:17	08/09/17 17:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	49		36 - 90				08/08/17 10:17	08/09/17 17:24	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-8_20170807

Lab Sample ID: 440-189727-4

Matrix: Water

Date Collected: 08/07/17 11:10

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/09/17 17:34	1
Benzene	ND		0.50	0.25	ug/L			08/09/17 17:34	1
Bromobenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Bromoform	ND		1.0	0.40	ug/L			08/09/17 17:34	1
Bromomethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/09/17 17:34	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Chloroethane	ND		1.0	0.40	ug/L			08/09/17 17:34	1
Chloroform	1.8		1.0	0.25	ug/L			08/09/17 17:34	1
Chloromethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/17 17:34	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/09/17 17:34	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Dibromomethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/09/17 17:34	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,2-Dichloroethane	0.58 J		1.0	0.25	ug/L			08/09/17 17:34	1
1,1-Dichloroethene	1.6		1.0	0.25	ug/L			08/09/17 17:34	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/09/17 17:34	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/09/17 17:34	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/09/17 17:34	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/09/17 17:34	1
Naphthalene	ND		1.0	0.40	ug/L			08/09/17 17:34	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/09/17 17:34	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
o-Xylene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Styrene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Tetrachloroethene	73		1.0	0.25	ug/L			08/09/17 17:34	1
Toluene	ND		1.0	0.25	ug/L			08/09/17 17:34	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-8_20170807

Lab Sample ID: 440-189727-4

Matrix: Water

Date Collected: 08/07/17 11:10

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/17 17:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/17 17:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/17 17:34	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Trichloroethene	5.6		1.0	0.25	ug/L			08/09/17 17:34	1
Trichlorofluoromethane	2.7		1.0	0.25	ug/L			08/09/17 17:34	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/09/17 17:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	24		5.0	0.50	ug/L			08/09/17 17:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/17 17:34	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/09/17 17:34	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/09/17 17:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		80 - 120					08/09/17 17:34	1
Dibromofluoromethane (Surr)	116		76 - 132					08/09/17 17:34	1
Toluene-d8 (Surr)	98		80 - 128					08/09/17 17:34	1
1,2-Dichloroethane-d4 (Surr)	125		70 - 130					08/09/17 17:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		250	180	ug/L			08/14/17 12:36	1
Surrogate									
%Recovery									
4-Bromofluorobenzene (Surr)									
95									
80 - 120									
Dibromofluoromethane (Surr)									
104									
76 - 132									
Toluene-d8 (Surr)									
94									
80 - 128									
1,2-Dichloroethane-d4 (Surr)									
104									
70 - 130									

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	8.5		0.52	0.10	ug/L			08/09/17 10:17	1
Surrogate									
%Recovery									
1,4-Dioxane-d8 (Surr)									
54									
36 - 90									
Prepared									
08/08/17 10:17									
08/09/17 17:47									
Analyzed									
1									

Client Sample ID: OC_GW_DPE-7D_20170807

Lab Sample ID: 440-189727-5

Matrix: Water

Date Collected: 08/07/17 10:48

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/09/17 18:03	1
Benzene	ND		0.50	0.25	ug/L			08/09/17 18:03	1
Bromobenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Bromoform	ND		1.0	0.25	ug/L			08/09/17 18:03	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-7D_20170807

Lab Sample ID: 440-189727-5

Matrix: Water

Date Collected: 08/07/17 10:48

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Bromoform	ND		1.0	0.40	ug/L			08/09/17 18:03	1
Bromomethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/09/17 18:03	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Chloroethane	ND		1.0	0.40	ug/L			08/09/17 18:03	1
Chloroform	0.29	J	1.0	0.25	ug/L			08/09/17 18:03	1
Chloromethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/17 18:03	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/09/17 18:03	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Dibromomethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/09/17 18:03	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,1-Dichloroethene	33		1.0	0.25	ug/L			08/09/17 18:03	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/09/17 18:03	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/09/17 18:03	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/09/17 18:03	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/09/17 18:03	1
Naphthalene	ND		1.0	0.40	ug/L			08/09/17 18:03	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/09/17 18:03	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
o-Xylene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Styrene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Tetrachloroethene	120		1.0	0.25	ug/L			08/09/17 18:03	1
Toluene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/17 18:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/17 18:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/17 18:03	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-7D_20170807

Lab Sample ID: 440-189727-5

Matrix: Water

Date Collected: 08/07/17 10:48

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Trichloroethene	39		1.0	0.25	ug/L			08/09/17 18:03	1
Trichlorofluoromethane	12		1.0	0.25	ug/L			08/09/17 18:03	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/09/17 18:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	28		5.0	0.50	ug/L			08/09/17 18:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/17 18:03	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/09/17 18:03	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/09/17 18:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		80 - 120					08/09/17 18:03	1
Dibromofluoromethane (Surr)	121		76 - 132					08/09/17 18:03	1
Toluene-d8 (Surr)	98		80 - 128					08/09/17 18:03	1
1,2-Dichloroethane-d4 (Surr)	127		70 - 130					08/09/17 18:03	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		250	180	ug/L			08/14/17 13:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		80 - 120					08/14/17 13:06	1
Dibromofluoromethane (Surr)	101		76 - 132					08/14/17 13:06	1
Toluene-d8 (Surr)	93		80 - 128					08/14/17 13:06	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					08/14/17 13:06	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.12	J	0.51	0.10	ug/L		08/08/17 10:17	08/09/17 18:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	54		36 - 90				08/08/17 10:17	08/09/17 18:09	1

Client Sample ID: OC_GW_DPE-5_20170807

Lab Sample ID: 440-189727-6

Matrix: Water

Date Collected: 08/07/17 10:18

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/10/17 22:14	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 22:14	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 22:14	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 22:14	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-5_20170807

Lab Sample ID: 440-189727-6

Matrix: Water

Date Collected: 08/07/17 10:18

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 22:14	1
Chloroform	5.1		1.0	0.25	ug/L			08/10/17 22:14	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 22:14	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 22:14	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 22:14	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,2-Dichloroethane	0.93 J		1.0	0.25	ug/L			08/10/17 22:14	1
1,1-Dichloroethene	30		1.0	0.25	ug/L			08/10/17 22:14	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 22:14	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 22:14	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 22:14	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 22:14	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 22:14	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 22:14	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Tetrachloroethene	160		1.0	0.25	ug/L			08/10/17 22:14	1
Toluene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 22:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 22:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 22:14	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Trichloroethene	12		1.0	0.25	ug/L			08/10/17 22:14	1
Trichlorofluoromethane	7.7		1.0	0.25	ug/L			08/10/17 22:14	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-5_20170807

Lab Sample ID: 440-189727-6

Matrix: Water

Date Collected: 08/07/17 10:18

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/10/17 22:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	9.1		5.0	0.50	ug/L			08/10/17 22:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:14	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/10/17 22:14	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/10/17 22:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		80 - 120					08/10/17 22:14	1
Dibromofluoromethane (Surr)	108		76 - 132					08/10/17 22:14	1
Toluene-d8 (Surr)	79 X		80 - 128					08/10/17 22:14	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130					08/10/17 22:14	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 10:49	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 10:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		80 - 120					08/11/17 10:49	1
Dibromofluoromethane (Surr)	103		76 - 132					08/11/17 10:49	1
Toluene-d8 (Surr)	80		80 - 128					08/11/17 10:49	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					08/11/17 10:49	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	6.9		0.54	0.11	ug/L		08/08/17 10:17	08/09/17 18:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	62		36 - 90				08/08/17 10:17	08/09/17 18:31	1

Client Sample ID: OC_GW_DPE-4_20170807

Lab Sample ID: 440-189727-7

Matrix: Water

Date Collected: 08/07/17 10:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	20	ug/L			08/11/17 04:06	2
Benzene	ND		1.0	0.50	ug/L			08/11/17 04:06	2
Bromobenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Bromochloromethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Bromodichloromethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Bromoform	ND		2.0	0.80	ug/L			08/11/17 04:06	2
Bromomethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Carbon tetrachloride	ND		1.0	0.50	ug/L			08/11/17 04:06	2
Chlorobenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Chloroethane	ND		2.0	0.80	ug/L			08/11/17 04:06	2

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-4_20170807

Lab Sample ID: 440-189727-7

Matrix: Water

Date Collected: 08/07/17 10:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	12		2.0	0.50	ug/L			08/11/17 04:06	2
Chloromethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
2-Chlorotoluene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
4-Chlorotoluene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
cis-1,2-Dichloroethene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
cis-1,3-Dichloropropene	ND		1.0	0.50	ug/L			08/11/17 04:06	2
Dibromochloromethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,2-Dibromo-3-Chloropropane	ND		10	1.0	ug/L			08/11/17 04:06	2
1,2-Dibromoethane (EDB)	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Dibromomethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,2-Dichlorobenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,3-Dichlorobenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,4-Dichlorobenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Dichlorodifluoromethane	ND		2.0	0.80	ug/L			08/11/17 04:06	2
1,1-Dichloroethane	0.75 J		2.0	0.50	ug/L			08/11/17 04:06	2
1,2-Dichloroethane	9.4		2.0	0.50	ug/L			08/11/17 04:06	2
1,1-Dichloroethene	4.2		2.0	0.50	ug/L			08/11/17 04:06	2
1,2-Dichloropropane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,3-Dichloropropane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
2,2-Dichloropropane	ND		2.0	0.80	ug/L			08/11/17 04:06	2
1,1-Dichloropropene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Ethylbenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Hexachlorobutadiene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Isopropyl alcohol	ND		500	350	ug/L			08/11/17 04:06	2
Isopropylbenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Methylene Chloride	ND		10	1.8	ug/L			08/11/17 04:06	2
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.50	ug/L			08/11/17 04:06	2
m,p-Xylene	ND		2.0	1.0	ug/L			08/11/17 04:06	2
Naphthalene	ND		2.0	0.80	ug/L			08/11/17 04:06	2
n-Butylbenzene	ND		2.0	0.80	ug/L			08/11/17 04:06	2
N-Propylbenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
o-Xylene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
p-Isopropyltoluene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
sec-Butylbenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Styrene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
tert-Butylbenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,1,1,2-Tetrachloroethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Toluene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
trans-1,2-Dichloroethene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
trans-1,3-Dichloropropene	ND		1.0	0.50	ug/L			08/11/17 04:06	2
1,2,3-Trichlorobenzene	ND		2.0	0.80	ug/L			08/11/17 04:06	2
1,2,4-Trichlorobenzene	ND		2.0	0.80	ug/L			08/11/17 04:06	2
1,1,1-Trichloroethane	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,1,2-Trichloroethane	2.3		2.0	0.50	ug/L			08/11/17 04:06	2
Trichloroethene	23		2.0	0.50	ug/L			08/11/17 04:06	2
Trichlorofluoromethane	3.7		2.0	0.50	ug/L			08/11/17 04:06	2
1,2,3-Trichloropropane	ND		2.0	0.80	ug/L			08/11/17 04:06	2
1,1,2-Trichloro-1,2,2-trifluoroethane	61		10	1.0	ug/L			08/11/17 04:06	2

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-4_20170807

Lab Sample ID: 440-189727-7

Matrix: Water

Date Collected: 08/07/17 10:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
1,3,5-Trimethylbenzene	ND		2.0	0.50	ug/L			08/11/17 04:06	2
Vinyl chloride	ND		1.0	0.50	ug/L			08/11/17 04:06	2
Tentatively Identified Compound									
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	None		ug/L					08/11/17 04:06	2
Surrogate									
4-Bromofluorobenzene (Surr)	84		80 - 120				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	112		76 - 132					08/11/17 04:06	2
Toluene-d8 (Surr)	79 X		80 - 128					08/11/17 04:06	2
1,2-Dichloroethane-d4 (Surr)	107		70 - 130					08/11/17 04:06	2

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	660		10	2.5	ug/L			08/11/17 04:36	10
Surrogate									
4-Bromofluorobenzene (Surr)	84		80 - 120				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	112		76 - 132					08/11/17 04:36	10
Toluene-d8 (Surr)	80		80 - 128					08/11/17 04:36	10
1,2-Dichloroethane-d4 (Surr)	106		70 - 130					08/11/17 04:36	10

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	75		0.51	0.10	ug/L		08/08/17 10:17	08/09/17 18:53	1
Surrogate									
1,4-Dioxane-d8 (Surr)	56		36 - 90				Prepared	Analyzed	Dil Fac

Client Sample ID: OC_GW_DPE-9_20170807

Lab Sample ID: 440-189727-8

Matrix: Water

Date Collected: 08/07/17 09:25

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 03:07	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 03:07	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 03:07	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 03:07	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 03:07	1
Chloroform	21		1.0	0.25	ug/L			08/11/17 03:07	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 03:07	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-9_20170807

Lab Sample ID: 440-189727-8

Matrix: Water

Date Collected: 08/07/17 09:25

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 03:07	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 03:07	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 03:07	1
1,1-Dichloroethane	0.63 J		1.0	0.25	ug/L			08/11/17 03:07	1
1,2-Dichloroethane	6.2		1.0	0.25	ug/L			08/11/17 03:07	1
1,1-Dichloroethene	35		1.0	0.25	ug/L			08/11/17 03:07	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 03:07	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 03:07	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 03:07	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 03:07	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 03:07	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 03:07	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 03:07	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 03:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 03:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 03:07	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,1,2-Trichloroethane	0.47 J		1.0	0.25	ug/L			08/11/17 03:07	1
Trichloroethene	28		1.0	0.25	ug/L			08/11/17 03:07	1
Trichlorofluoromethane	19		1.0	0.25	ug/L			08/11/17 03:07	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 03:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	56		5.0	0.50	ug/L			08/11/17 03:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:07	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 03:07	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-9_20170807

Lab Sample ID: 440-189727-8

Matrix: Water

Date Collected: 08/07/17 09:25

Date Received: 08/07/17 17:40

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	4.3	T J	ug/L		8.97			08/11/17 03:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		80 - 120					08/11/17 03:07	1
Dibromofluoromethane (Surr)	113		76 - 132					08/11/17 03:07	1
Toluene-d8 (Surr)	78	X	80 - 128					08/11/17 03:07	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					08/11/17 03:07	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	480		5.0	1.3	ug/L			08/11/17 03:37	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		80 - 120					08/11/17 03:37	5
Dibromofluoromethane (Surr)	113		76 - 132					08/11/17 03:37	5
Toluene-d8 (Surr)	77	X	80 - 128					08/11/17 03:37	5
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					08/11/17 03:37	5

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	37		0.50	0.10	ug/L		08/08/17 10:17	08/09/17 19:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	57		36 - 90				08/08/17 10:17	08/09/17 19:15	1

Client Sample ID: OC_GW_EW-5_20170807

Lab Sample ID: 440-189727-9

Matrix: Water

Date Collected: 08/07/17 08:30

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 00:40	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 00:40	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 00:40	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 00:40	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 00:40	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 00:40	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 00:40	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_EW-5_20170807

Lab Sample ID: 440-189727-9

Matrix: Water

Date Collected: 08/07/17 08:30

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 00:40	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,1-Dichloroethene	25		1.0	0.25	ug/L			08/11/17 00:40	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 00:40	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 00:40	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 00:40	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 00:40	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 00:40	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 00:40	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 00:40	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Tetrachloroethene	24		1.0	0.25	ug/L			08/11/17 00:40	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 00:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 00:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 00:40	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Trichloroethene	3.3		1.0	0.25	ug/L			08/11/17 00:40	1
Trichlorofluoromethane	64		1.0	0.25	ug/L			08/11/17 00:40	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 00:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	90		5.0	0.50	ug/L			08/11/17 00:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 00:40	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 00:40	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 00:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Sur)	84		80 - 120		08/11/17 00:40	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_EW-5_20170807

Lab Sample ID: 440-189727-9

Matrix: Water

Date Collected: 08/07/17 08:30

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		76 - 132		08/11/17 00:40	1
Toluene-d8 (Surr)	78	X	80 - 128		08/11/17 00:40	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		08/11/17 00:40	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.51	0.10	ug/L	-	08/08/17 10:17	08/09/17 19:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	58		36 - 90				08/08/17 10:17	08/09/17 19:37	1

Client Sample ID: OC_GW_EW-4_20170807

Lab Sample ID: 440-189727-10

Matrix: Water

Date Collected: 08/07/17 08:14

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L		08/11/17 01:09		1
Benzene	ND		0.50	0.25	ug/L		08/11/17 01:09		1
Bromobenzene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Bromochloromethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Bromodichloromethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Bromoform	ND		1.0	0.40	ug/L		08/11/17 01:09		1
Bromomethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Carbon tetrachloride	ND		0.50	0.25	ug/L		08/11/17 01:09		1
Chlorobenzene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Chloroethane	ND		1.0	0.40	ug/L		08/11/17 01:09		1
Chloroform	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Chloromethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
2-Chlorotoluene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
4-Chlorotoluene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L		08/11/17 01:09		1
Dibromochloromethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L		08/11/17 01:09		1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Dibromomethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L		08/11/17 01:09		1
1,1-Dichloroethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
1,2-Dichloroethane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
1,1-Dichloroethene	66		1.0	0.25	ug/L		08/11/17 01:09		1
1,2-Dichloropropane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
1,3-Dichloropropane	ND		1.0	0.25	ug/L		08/11/17 01:09		1
2,2-Dichloropropane	ND		1.0	0.40	ug/L		08/11/17 01:09		1
1,1-Dichloropropene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Ethylbenzene	ND		1.0	0.25	ug/L		08/11/17 01:09		1
Hexachlorobutadiene	ND		1.0	0.25	ug/L		08/11/17 01:09		1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_EW-4_20170807

Lab Sample ID: 440-189727-10

Matrix: Water

Date Collected: 08/07/17 08:14

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 01:09	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 01:09	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 01:09	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 01:09	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 01:09	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 01:09	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:09	1
Tetrachloroethene	59		1.0	0.25	ug/L			08/11/17 01:09	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 01:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:09	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:09	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:09	1
Trichloroethene	7.0		1.0	0.25	ug/L			08/11/17 01:09	1
Trichlorofluoromethane	29		1.0	0.25	ug/L			08/11/17 01:09	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 01:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	44		5.0	0.50	ug/L			08/11/17 01:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:09	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 01:09	1

Tentatively Identified Compound

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 01:09	1

Surrogate

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		80 - 120			1
Dibromofluoromethane (Surr)	112		76 - 132			1
Toluene-d8 (Surr)	78	X	80 - 128			1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130			1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.10	J	0.51	0.10	ug/L		08/08/17 10:17	08/09/17 19:59	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8 (Surr)	60		36 - 90	08/08/17 10:17	08/09/17 19:59	1			

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_TB1_20170807

Lab Sample ID: 440-189727-11

Matrix: Water

Date Collected: 08/07/17 07:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 01:39	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 01:39	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 01:39	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 01:39	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 01:39	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 01:39	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 01:39	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 01:39	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 01:39	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 01:39	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 01:39	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 01:39	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 01:39	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 01:39	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 01:39	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/11/17 01:39	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_TB1_20170807

Lab Sample ID: 440-189727-11

Matrix: Water

Date Collected: 08/07/17 07:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 01:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:39	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Trichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 01:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/11/17 01:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:39	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 01:39	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		80 - 120					08/11/17 01:39	1
Dibromofluoromethane (Surr)	112		76 - 132					08/11/17 01:39	1
Toluene-d8 (Surr)	78	X	80 - 128					08/11/17 01:39	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130					08/11/17 01:39	1

Client Sample ID: OC_GW_TB2_20170807

Lab Sample ID: 440-189727-12

Matrix: Water

Date Collected: 08/07/17 07:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 02:08	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 02:08	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 02:08	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 02:08	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 02:08	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:08	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 02:08	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_TB2_20170807

Lab Sample ID: 440-189727-12

Matrix: Water

Date Collected: 08/07/17 07:00

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 02:08	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:08	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 02:08	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 02:08	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 02:08	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 02:08	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 02:08	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 02:08	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:08	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Trichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/11/17 02:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:08	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 02:08	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 02:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		80 - 120		08/11/17 02:08	1
Dibromofluoromethane (Surr)	109		76 - 132		08/11/17 02:08	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_TB2_20170807

Date Collected: 08/07/17 07:00

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-12

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	78	X	80 - 128		08/11/17 02:08	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		08/11/17 02:08	1

Client Sample ID: OC_GW_EW-3_20170807

Date Collected: 08/07/17 07:54

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-13

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 02:38	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 02:38	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 02:38	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 02:38	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 02:38	1
Chloroform	2.6		1.0	0.25	ug/L			08/11/17 02:38	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
cis-1,2-Dichloroethene	2.0		1.0	0.25	ug/L			08/11/17 02:38	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:38	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 02:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 02:38	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,1-Dichloroethene	97		1.0	0.25	ug/L			08/11/17 02:38	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:38	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 02:38	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 02:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 02:38	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 02:38	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 02:38	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 02:38	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_EW-3_20170807

Lab Sample ID: 440-189727-13

Matrix: Water

Date Collected: 08/07/17 07:54

Date Received: 08/07/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Tetrachloroethene	170		1.0	0.25	ug/L			08/11/17 02:38	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:38	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Trichloroethene	22		1.0	0.25	ug/L			08/11/17 02:38	1
Trichlorofluoromethane	33		1.0	0.25	ug/L			08/11/17 02:38	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	54		5.0	0.50	ug/L			08/11/17 02:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:38	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 02:38	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methane, dichlorofluoro-	2.5	T J N	ug/L		2.99	75-43-4		08/11/17 02:38	1
Furan, tetrahydro-	170	T J N	ug/L		5.92	109-99-9		08/11/17 02:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		80 - 120			1
Dibromofluoromethane (Surr)	108		76 - 132			1
Toluene-d8 (Surr)	78	X	80 - 128			1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130			1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.55		0.51	0.10	ug/L		08/08/17 10:17	08/09/17 20:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	72		36 - 90				08/08/17 10:17	08/09/17 20:20	1

TestAmerica Irvine

Surrogate Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-189727-1 - DL	OC_GW_DPE-11D_20170807	89	116	99	115
440-189727-1	OC_GW_DPE-11D_20170807	87	116	100	117
440-189727-1 - RA	OC_GW_DPE-11D_20170807	93	102	95	93
440-189727-1 MS	OC_GW_DPE-11D_20170807	90	109	98	104
440-189727-1 MSD	OC_GW_DPE-11D_20170807	90	111	98	109
440-189727-2	OC_GW_DPE-10D_20170807	89	117	97	113
440-189727-2 - DL	OC_GW_DPE-10D_20170807	87	117	96	117
440-189727-2 - RA	OC_GW_DPE-10D_20170807	96	99	94	96
440-189727-3	OC_GW_DPE-13D_20170807	80	111	96	119
440-189727-3 - RA	OC_GW_DPE-13D_20170807	92	101	95	101
440-189727-4	OC_GW_DPE-8_20170807	86	116	98	125
440-189727-4 - RA	OC_GW_DPE-8_20170807	95	104	94	104
440-189727-5	OC_GW_DPE-7D_20170807	89	121	98	127
440-189727-5 - RA	OC_GW_DPE-7D_20170807	94	101	93	101
440-189727-6	OC_GW_DPE-5_20170807	86	108	79 X	102
440-189727-6 - RA	OC_GW_DPE-5_20170807	83	103	80	101
440-189727-6 MS	OC_GW_DPE-5_20170807	86	102	77 X	95
440-189727-6 MSD	OC_GW_DPE-5_20170807	86	102	78 X	95
440-189727-7	OC_GW_DPE-4_20170807	84	112	79 X	107
440-189727-7 - DL	OC_GW_DPE-4_20170807	84	112	80	106
440-189727-8	OC_GW_DPE-9_20170807	86	113	78 X	108
440-189727-8 - DL	OC_GW_DPE-9_20170807	85	113	77 X	110
440-189727-9	OC_GW_EW-5_20170807	84	110	78 X	104
440-189727-10	OC_GW_EW-4_20170807	84	112	78 X	106
440-189727-11	OC_GW_TB1_20170807	83	112	78 X	107
440-189727-12	OC_GW_TB2_20170807	83	109	78 X	104
440-189727-13	OC_GW_EW-3_20170807	83	108	78 X	103
440-189762-B-10 MS	Matrix Spike	90	109	91	111
440-189762-B-10 MSD	Matrix Spike Duplicate	92	109	91	105
440-190083-A-2 MS	Matrix Spike	93	103	89	97
440-190083-A-2 MSD	Matrix Spike Duplicate	94	102	88	96
LCS 440-422105/5	Lab Control Sample	87	101	86	98
LCS 440-422532/5	Lab Control Sample	90	108	98	106
LCS 440-422532/6	Lab Control Sample	89	108	94	111
LCS 440-422634/24	Lab Control Sample	86	108	93	108
LCS 440-423019/7	Lab Control Sample	94	100	94	99
MB 440-422105/4	Method Blank	87	105	88	107
MB 440-422532/26	Method Blank	89	112	96	114
MB 440-422634/4	Method Blank	88	119	96	117
MB 440-423019/4	Method Blank	102	110	111	115

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

14DD8

Lab Sample ID	Client Sample ID	(36-90)
440-189727-1	OC_GW_DPE-11D_20170807	50
440-189727-2	OC_GW_DPE-10D_20170807	63
440-189727-3	OC_GW_DPE-13D_20170807	49
440-189727-4	OC_GW_DPE-8_20170807	54
440-189727-5	OC_GW_DPE-7D_20170807	54
440-189727-6	OC_GW_DPE-5_20170807	62
440-189727-7	OC_GW_DPE-4_20170807	56
440-189727-8	OC_GW_DPE-9_20170807	57
440-189727-9	OC_GW_EW-5_20170807	58
440-189727-10	OC_GW_EW-4_20170807	60
440-189727-13	OC_GW_EW-3_20170807	72
LCS 440-421917/2-A	Lab Control Sample	57
LCSD 440-421917/3-A	Lab Control Sample Dup	75
MB 440-421917/1-A	Method Blank	67

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

Method Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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TestAmerica Irvine

Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-11D_20170807

Lab Sample ID: 440-189727-1

Matrix: Water

Date Collected: 08/07/17 12:00

Date Received: 08/07/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	10 mL	10 mL	422105	08/09/17 10:41	MM1	TAL IRV
Total/NA	Analysis	8260B	DL	10	10 mL	10 mL	422105	08/09/17 11:10	MM1	TAL IRV
Total/NA	Analysis	8260B	RA	2	10 mL	10 mL	423019	08/14/17 11:07	RM	TAL IRV
Total/NA	Prep	3520C			965 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 16:40	TL	TAL IRV

Client Sample ID: OC_GW_DPE-10D_20170807

Lab Sample ID: 440-189727-2

Matrix: Water

Date Collected: 08/07/17 11:55

Date Received: 08/07/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	10 mL	10 mL	422105	08/09/17 16:05	MM1	TAL IRV
Total/NA	Analysis	8260B	DL	10	10 mL	10 mL	422105	08/09/17 16:35	MM1	TAL IRV
Total/NA	Analysis	8260B	RA	2	10 mL	10 mL	423019	08/14/17 11:37	RM	TAL IRV
Total/NA	Prep	3520C			955 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 17:02	TL	TAL IRV

Client Sample ID: OC_GW_DPE-13D_20170807

Lab Sample ID: 440-189727-3

Matrix: Water

Date Collected: 08/07/17 11:31

Date Received: 08/07/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422105	08/09/17 17:04	MM1	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	423019	08/14/17 12:06	RM	TAL IRV
Total/NA	Prep	3520C			970 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 17:24	TL	TAL IRV

Client Sample ID: OC_GW_DPE-8_20170807

Lab Sample ID: 440-189727-4

Matrix: Water

Date Collected: 08/07/17 11:10

Date Received: 08/07/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422105	08/09/17 17:34	MM1	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	423019	08/14/17 12:36	RM	TAL IRV
Total/NA	Prep	3520C			955 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 17:47	TL	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_DPE-7D_20170807

Date Collected: 08/07/17 10:48

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422105	08/09/17 18:03	MM1	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	423019	08/14/17 13:06	RM	TAL IRV
Total/NA	Prep	3520C			990 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 18:09	TL	TAL IRV

Client Sample ID: OC_GW_DPE-5_20170807

Date Collected: 08/07/17 10:18

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422532	08/10/17 22:14	WK	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	422634	08/11/17 10:49	RM	TAL IRV
Total/NA	Prep	3520C			920 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 18:31	TL	TAL IRV

Client Sample ID: OC_GW_DPE-4_20170807

Date Collected: 08/07/17 10:00

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	10 mL	10 mL	422532	08/11/17 04:06	WK	TAL IRV
Total/NA	Analysis	8260B	DL	10	10 mL	10 mL	422532	08/11/17 04:36	WK	TAL IRV
Total/NA	Prep	3520C			975 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 18:53	TL	TAL IRV

Client Sample ID: OC_GW_DPE-9_20170807

Date Collected: 08/07/17 09:25

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422532	08/11/17 03:07	WK	TAL IRV
Total/NA	Analysis	8260B	DL	5	10 mL	10 mL	422532	08/11/17 03:37	WK	TAL IRV
Total/NA	Prep	3520C			1000 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 19:15	TL	TAL IRV

Client Sample ID: OC_GW_EW-5_20170807

Date Collected: 08/07/17 08:30

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422532	08/11/17 00:40	WK	TAL IRV
Total/NA	Prep	3520C			975 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Client Sample ID: OC_GW_EW-5_20170807

Date Collected: 08/07/17 08:30

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 19:37	TL	TAL IRV

Client Sample ID: OC_GW_EW-4_20170807

Date Collected: 08/07/17 08:14

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422532	08/11/17 01:09	WK	TAL IRV
Total/NA	Prep	3520C			980 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 19:59	TL	TAL IRV

Client Sample ID: OC_GW_TB1_20170807

Date Collected: 08/07/17 07:00

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422532	08/11/17 01:39	WK	TAL IRV

Client Sample ID: OC_GW_TB2_20170807

Date Collected: 08/07/17 07:00

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422532	08/11/17 02:08	WK	TAL IRV

Client Sample ID: OC_GW_EW-3_20170807

Date Collected: 08/07/17 07:54

Date Received: 08/07/17 17:40

Lab Sample ID: 440-189727-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422532	08/11/17 02:38	WK	TAL IRV
Total/NA	Prep	3520C			985 mL	1.0 mL	421917	08/08/17 10:17	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422247	08/09/17 20:20	TL	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-422105/4

Matrix: Water

Analysis Batch: 422105

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/09/17 08:13	1
Benzene	ND		0.50	0.25	ug/L			08/09/17 08:13	1
Bromobenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Bromoform	ND		1.0	0.40	ug/L			08/09/17 08:13	1
Bromomethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/09/17 08:13	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Chloroethane	ND		1.0	0.40	ug/L			08/09/17 08:13	1
Chloroform	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Chloromethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/17 08:13	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/09/17 08:13	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Dibromomethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/09/17 08:13	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/09/17 08:13	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/09/17 08:13	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/09/17 08:13	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/09/17 08:13	1
Naphthalene	ND		1.0	0.40	ug/L			08/09/17 08:13	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/09/17 08:13	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
o-Xylene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Styrene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/17 08:13	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/09/17 08:13	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-422105/4

Matrix: Water

Analysis Batch: 422105

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	MB	MB									
Toluene	ND				1.0	0.25	ug/L			08/09/17 08:13	1
trans-1,2-Dichloroethene	ND				1.0	0.25	ug/L			08/09/17 08:13	1
trans-1,3-Dichloropropene	ND				0.50	0.25	ug/L			08/09/17 08:13	1
1,2,3-Trichlorobenzene	ND				1.0	0.40	ug/L			08/09/17 08:13	1
1,2,4-Trichlorobenzene	ND				1.0	0.40	ug/L			08/09/17 08:13	1
1,1,1-Trichloroethane	ND				1.0	0.25	ug/L			08/09/17 08:13	1
1,1,2-Trichloroethane	ND				1.0	0.25	ug/L			08/09/17 08:13	1
Trichloroethene	ND				1.0	0.25	ug/L			08/09/17 08:13	1
Trichlorofluoromethane	ND				1.0	0.25	ug/L			08/09/17 08:13	1
1,2,3-Trichloropropane	ND				1.0	0.40	ug/L			08/09/17 08:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				5.0	0.50	ug/L			08/09/17 08:13	1
1,2,4-Trimethylbenzene	ND				1.0	0.25	ug/L			08/09/17 08:13	1
1,3,5-Trimethylbenzene	ND				1.0	0.25	ug/L			08/09/17 08:13	1
Vinyl chloride	ND				0.50	0.25	ug/L			08/09/17 08:13	1

Tentatively Identified Compound	MB		Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	MB	MB									
Tentatively Identified Compound	None				ug/L					08/09/17 08:13	1

Surrogate	MB		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
	MB	MB								
4-Bromofluorobenzene (Surr)	87				80 - 120				08/09/17 08:13	1
Dibromofluoromethane (Surr)	105				76 - 132				08/09/17 08:13	1
Toluene-d8 (Surr)	88				80 - 128				08/09/17 08:13	1
1,2-Dichloroethane-d4 (Surr)	107				70 - 130				08/09/17 08:13	1

Lab Sample ID: LCS 440-422105/5

Matrix: Water

Analysis Batch: 422105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
		LCS	LCS							
Acetone	25.0	31.4				ug/L		126	10 - 150	
Benzene	25.0	24.0				ug/L		96	68 - 130	
Bromobenzene	25.0	26.4				ug/L		106	70 - 130	
Bromochloromethane	25.0	29.6				ug/L		119	70 - 130	
Bromodichloromethane	25.0	25.5				ug/L		102	70 - 132	
Bromoform	25.0	31.8				ug/L		127	60 - 148	
Bromomethane	25.0	26.4				ug/L		106	64 - 139	
Carbon tetrachloride	25.0	29.7				ug/L		119	60 - 150	
Chlorobenzene	25.0	25.0				ug/L		100	70 - 130	
Chloroethane	25.0	25.6				ug/L		102	64 - 135	
Chloroform	25.0	25.2				ug/L		101	70 - 130	
Chloromethane	25.0	23.6				ug/L		94	47 - 140	
2-Chlorotoluene	25.0	24.0				ug/L		96	70 - 130	
4-Chlorotoluene	25.0	24.4				ug/L		98	70 - 130	
cis-1,2-Dichloroethene	25.0	24.9				ug/L		99	70 - 133	
cis-1,3-Dichloropropene	25.0	23.7				ug/L		95	70 - 133	
Dibromochloromethane	25.0	27.1				ug/L		109	69 - 145	
1,2-Dibromo-3-Chloropropane	25.0	27.2				ug/L		109	52 - 140	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422105/5

Matrix: Water

Analysis Batch: 422105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	
	Added	Result	Qualifier						
1,2-Dibromoethane (EDB)	25.0	26.3		ug/L		105	70 - 130		
Dibromomethane	25.0	24.6		ug/L		99	70 - 130		
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130		
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130		
1,4-Dichlorobenzene	25.0	25.4		ug/L		101	70 - 130		
Dichlorodifluoromethane	25.0	29.8		ug/L		119	29 - 150		
1,1-Dichloroethane	25.0	23.4		ug/L		94	64 - 130		
1,2-Dichloroethane	25.0	26.0		ug/L		104	57 - 138		
1,1-Dichloroethene	25.0	26.2		ug/L		105	70 - 130		
1,2-Dichloropropane	25.0	21.6		ug/L		86	67 - 130		
1,3-Dichloropropane	25.0	23.1		ug/L		92	70 - 130		
2,2-Dichloropropane	25.0	28.2		ug/L		113	68 - 141		
1,1-Dichloropropene	25.0	26.7		ug/L		107	70 - 130		
Ethylbenzene	25.0	25.8		ug/L		103	70 - 130		
Hexachlorobutadiene	25.0	28.5		ug/L		114	10 - 150		
Isopropylbenzene	25.0	29.4		ug/L		118	70 - 136		
Methylene Chloride	25.0	23.5		ug/L		94	52 - 130		
Methyl-t-Butyl Ether (MTBE)	25.0	26.6		ug/L		106	63 - 131		
m,p-Xylene	25.0	27.3		ug/L		109	70 - 130		
Naphthalene	25.0	27.7		ug/L		111	60 - 140		
n-Butylbenzene	25.0	22.7		ug/L		91	65 - 150		
N-Propylbenzene	25.0	25.7		ug/L		103	67 - 139		
o-Xylene	25.0	27.6		ug/L		110	70 - 130		
p-Isopropyltoluene	25.0	26.6		ug/L		107	70 - 132		
sec-Butylbenzene	25.0	23.9		ug/L		96	70 - 138		
Styrene	25.0	26.2		ug/L		105	70 - 134		
tert-Butylbenzene	25.0	27.0		ug/L		108	70 - 130		
1,1,1,2-Tetrachloroethane	25.0	28.0		ug/L		112	60 - 141		
1,1,2,2-Tetrachloroethane	25.0	22.6		ug/L		90	63 - 130		
Tetrachloroethene	25.0	28.8		ug/L		115	70 - 130		
Toluene	25.0	26.0		ug/L		104	70 - 130		
trans-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 130		
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 132		
1,2,3-Trichlorobenzene	25.0	29.3		ug/L		117	60 - 140		
1,2,4-Trichlorobenzene	25.0	28.1		ug/L		112	60 - 140		
1,1,1-Trichloroethane	25.0	28.3		ug/L		113	70 - 130		
1,1,2-Trichloroethane	25.0	23.9		ug/L		95	70 - 130		
Trichloroethene	25.0	28.1		ug/L		112	70 - 130		
Trichlorofluoromethane	25.0	29.8		ug/L		119	60 - 150		
1,2,3-Trichloropropane	25.0	27.3		ug/L		109	63 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.6		ug/L		107	60 - 140		
1,2,4-Trimethylbenzene	25.0	24.4		ug/L		98	70 - 135		
1,3,5-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 136		
Vinyl chloride	25.0	24.5		ug/L		98	59 - 133		

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Sur)	87		80 - 120

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422105/5

Matrix: Water

Analysis Batch: 422105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	101		76 - 132
Toluene-d8 (Surr)	86		80 - 128
1,2-Dichloroethane-d4 (Surr)	98		70 - 130

Lab Sample ID: 440-189727-1 MS

Matrix: Water

Analysis Batch: 422105

Client Sample ID: OC_GW_DPE-11D_20170807

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		250	225		ug/L	90	10 - 150	
Benzene	ND		250	241		ug/L	96	66 - 130	
Bromobenzene	ND		250	263		ug/L	105	70 - 130	
Bromochloromethane	ND		250	295		ug/L	118	70 - 130	
Bromodichloromethane	ND		250	265		ug/L	106	70 - 138	
Bromoform	ND		250	276		ug/L	110	59 - 150	
Bromomethane	ND		250	265		ug/L	106	62 - 131	
Carbon tetrachloride	ND		250	296		ug/L	118	60 - 150	
Chlorobenzene	ND		250	245		ug/L	98	70 - 130	
Chloroethane	ND		250	246		ug/L	99	68 - 130	
Chloroform	83		250	339		ug/L	102	70 - 130	
Chloromethane	ND		250	235		ug/L	94	39 - 144	
2-Chlorotoluene	ND		250	241		ug/L	96	70 - 130	
4-Chlorotoluene	ND		250	249		ug/L	100	70 - 130	
cis-1,2-Dichloroethene	ND		250	254		ug/L	102	70 - 130	
cis-1,3-Dichloropropene	ND		250	228		ug/L	91	70 - 133	
Dibromochloromethane	ND		250	262		ug/L	105	70 - 148	
1,2-Dibromo-3-Chloropropane	ND		250	199		ug/L	80	48 - 140	
1,2-Dibromoethane (EDB)	ND		250	233		ug/L	93	70 - 131	
Dibromomethane	ND		250	241		ug/L	97	70 - 130	
1,2-Dichlorobenzene	ND		250	261		ug/L	104	70 - 130	
1,3-Dichlorobenzene	ND		250	255		ug/L	102	70 - 130	
1,4-Dichlorobenzene	ND		250	255		ug/L	102	70 - 130	
Dichlorodifluoromethane	ND		250	282		ug/L	113	25 - 142	
1,1-Dichloroethane	ND		250	241		ug/L	97	65 - 130	
1,2-Dichloroethane	14		250	267		ug/L	101	56 - 146	
1,1-Dichloroethene	180		250	406		ug/L	92	70 - 130	
1,2-Dichloropropane	ND		250	219		ug/L	87	69 - 130	
1,3-Dichloropropane	ND		250	211		ug/L	85	70 - 130	
2,2-Dichloropropane	ND		250	277		ug/L	111	69 - 138	
1,1-Dichloropropene	ND		250	257		ug/L	103	64 - 130	
Ethylbenzene	ND		250	250		ug/L	100	70 - 130	
Hexachlorobutadiene	ND		250	283		ug/L	113	10 - 150	
Isopropylbenzene	ND		250	283		ug/L	113	70 - 132	
Methylene Chloride	ND		250	241		ug/L	96	52 - 130	
Methyl-t-Butyl Ether (MTBE)	ND		250	254		ug/L	102	70 - 130	
m,p-Xylene	ND		250	265		ug/L	106	70 - 133	
Naphthalene	ND		250	235		ug/L	94	60 - 140	
n-Butylbenzene	ND		250	221		ug/L	88	61 - 149	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189727-1 MS

Client Sample ID: OC_GW_DPE-11D_20170807

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 422105

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
N-Propylbenzene	ND		250	252		ug/L		101	66 - 135
o-Xylene	ND		250	272		ug/L		109	70 - 133
p-Isopropyltoluene	ND		250	263		ug/L		105	70 - 130
sec-Butylbenzene	ND		250	237		ug/L		95	67 - 134
Styrene	ND		250	253		ug/L		101	29 - 150
tert-Butylbenzene	ND		250	269		ug/L		108	70 - 130
1,1,1,2-Tetrachloroethane	ND		250	282		ug/L		113	60 - 149
1,1,2,2-Tetrachloroethane	ND		250	192		ug/L		77	63 - 130
Tetrachloroethylene	1100		250	1290	4	ug/L		80	70 - 137
Toluene	ND		250	254		ug/L		102	70 - 130
trans-1,2-Dichloroethene	ND		250	256		ug/L		102	70 - 130
trans-1,3-Dichloropropene	ND		250	226		ug/L		91	70 - 138
1,2,3-Trichlorobenzene	ND		250	285		ug/L		114	60 - 140
1,2,4-Trichlorobenzene	ND		250	270		ug/L		108	60 - 140
1,1,1-Trichloroethane	ND		250	282		ug/L		113	70 - 130
1,1,2-Trichloroethane	ND		250	222		ug/L		89	70 - 130
Trichloroethylene	110		250	391		ug/L		114	70 - 130
Trichlorofluoromethane	74		250	353		ug/L		111	60 - 150
1,2,3-Trichloropropane	ND		250	232		ug/L		93	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	230		250	457		ug/L		92	60 - 140
1,2,4-Trimethylbenzene	ND		250	248		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	ND		250	250		ug/L		100	70 - 130
Vinyl chloride	ND		250	239		ug/L		96	50 - 137

MS MS

Surrogate	MS Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		80 - 120
Dibromofluoromethane (Surr)	109		76 - 132
Toluene-d8 (Surr)	98		80 - 128
1,2-Dichloroethane-d4 (Surr)	104		70 - 130

Lab Sample ID: 440-189727-1 MSD

Client Sample ID: OC_GW_DPE-11D_20170807

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 422105

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Acetone	ND		250	253		ug/L		101	10 - 150
Benzene	ND		250	249		ug/L		100	66 - 130
Bromobenzene	ND		250	277		ug/L		111	70 - 130
Bromochloromethane	ND		250	305		ug/L		122	70 - 130
Bromodichloromethane	ND		250	272		ug/L		109	70 - 138
Bromoform	ND		250	301		ug/L		121	59 - 150
Bromomethane	ND		250	274		ug/L		110	62 - 131
Carbon tetrachloride	ND		250	308		ug/L		123	60 - 150
Chlorobenzene	ND		250	256		ug/L		103	70 - 130
Chloroethane	ND		250	265		ug/L		106	68 - 130
Chloroform	83		250	350		ug/L		107	70 - 130
Chloromethane	ND		250	240		ug/L		96	39 - 144

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189727-1 MSD

Client Sample ID: OC_GW_DPE-11D_20170807

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 422105

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
2-Chlorotoluene	ND		250	252		ug/L	101	70 - 130	4	20	
4-Chlorotoluene	ND		250	258		ug/L	103	70 - 130	4	20	
cis-1,2-Dichloroethene	ND		250	266		ug/L	106	70 - 130	5	20	
cis-1,3-Dichloropropene	ND		250	237		ug/L	95	70 - 133	4	20	
Dibromochloromethane	ND		250	274		ug/L	109	70 - 148	5	25	
1,2-Dibromo-3-Chloropropane	ND		250	231		ug/L	92	48 - 140	15	30	
1,2-Dibromoethane (EDB)	ND		250	239		ug/L	96	70 - 131	3	25	
Dibromomethane	ND		250	252		ug/L	101	70 - 130	4	25	
1,2-Dichlorobenzene	ND		250	276		ug/L	110	70 - 130	5	20	
1,3-Dichlorobenzene	ND		250	267		ug/L	107	70 - 130	4	20	
1,4-Dichlorobenzene	ND		250	266		ug/L	106	70 - 130	4	20	
Dichlorodifluoromethane	ND		250	290		ug/L	116	25 - 142	3	30	
1,1-Dichloroethane	ND		250	249		ug/L	100	65 - 130	3	20	
1,2-Dichloroethane	14		250	283		ug/L	107	56 - 146	6	20	
1,1-Dichloroethene	180		250	428		ug/L	101	70 - 130	5	20	
1,2-Dichloropropane	ND		250	231		ug/L	92	69 - 130	5	20	
1,3-Dichloropropane	ND		250	222		ug/L	89	70 - 130	5	25	
2,2-Dichloropropane	ND		250	283		ug/L	113	69 - 138	2	25	
1,1-Dichloropropene	ND		250	264		ug/L	105	64 - 130	3	20	
Ethylbenzene	ND		250	261		ug/L	104	70 - 130	4	20	
Hexachlorobutadiene	ND		250	301		ug/L	121	10 - 150	6	20	
Isopropylbenzene	ND		250	295		ug/L	118	70 - 132	4	20	
Methylene Chloride	ND		250	247		ug/L	99	52 - 130	3	20	
Methyl-t-Butyl Ether (MTBE)	ND		250	272		ug/L	109	70 - 130	7	25	
m,p-Xylene	ND		250	277		ug/L	111	70 - 133	4	25	
Naphthalene	ND		250	263		ug/L	105	60 - 140	11	30	
n-Butylbenzene	ND		250	235		ug/L	94	61 - 149	6	20	
N-Propylbenzene	ND		250	266		ug/L	106	66 - 135	6	20	
o-Xylene	ND		250	278		ug/L	111	70 - 133	2	20	
p-Isopropyltoluene	ND		250	277		ug/L	111	70 - 130	5	20	
sec-Butylbenzene	ND		250	246		ug/L	99	67 - 134	4	20	
Styrene	ND		250	265		ug/L	106	29 - 150	5	35	
tert-Butylbenzene	ND		250	283		ug/L	113	70 - 130	5	20	
1,1,1,2-Tetrachloroethane	ND		250	292		ug/L	117	60 - 149	4	20	
1,1,2,2-Tetrachloroethane	ND		250	205		ug/L	82	63 - 130	6	30	
Tetrachloroethene	1100		250	1310	4	ug/L	87	70 - 137	1	20	
Toluene	ND		250	262		ug/L	105	70 - 130	3	20	
trans-1,2-Dichloroethene	ND		250	271		ug/L	108	70 - 130	6	20	
trans-1,3-Dichloropropene	ND		250	241		ug/L	96	70 - 138	6	25	
1,2,3-Trichlorobenzene	ND		250	308		ug/L	123	60 - 140	7	20	
1,2,4-Trichlorobenzene	ND		250	293		ug/L	117	60 - 140	8	20	
1,1,1-Trichloroethane	ND		250	295		ug/L	118	70 - 130	5	20	
1,1,2-Trichloroethane	ND		250	225		ug/L	90	70 - 130	2	25	
Trichloroethene	110		250	401		ug/L	118	70 - 130	3	20	
Trichlorofluoromethane	74		250	368		ug/L	118	60 - 150	4	25	
1,2,3-Trichloropropane	ND		250	241		ug/L	96	60 - 130	4	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	230		250	468		ug/L	96	60 - 140	2	20	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189727-1 MSD

Client Sample ID: OC_GW_DPE-11D_20170807

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 422105

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,2,4-Trimethylbenzene	ND		250	258		ug/L		103	70 - 130	4	25
1,3,5-Trimethylbenzene	ND		250	262		ug/L		105	70 - 130	5	20
Vinyl chloride	ND		250	251		ug/L		100	50 - 137	5	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	90		80 - 120
Dibromofluoromethane (Surr)	111		76 - 132
Toluene-d8 (Surr)	98		80 - 128
1,2-Dichloroethane-d4 (Surr)	109		70 - 130

Lab Sample ID: MB 440-422532/26

Matrix: Water

Analysis Batch: 422532

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		10	10	ug/L			08/10/17 21:44	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 21:44	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 21:44	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 21:44	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 21:44	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 21:44	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 21:44	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 21:44	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 21:44	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 21:44	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:44	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 21:44	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-422532/26

Matrix: Water

Analysis Batch: 422532

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND				250	180	ug/L			08/10/17 21:44	1
Isopropylbenzene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
Methylene Chloride	ND				5.0	0.88	ug/L			08/10/17 21:44	1
Methyl-t-Butyl Ether (MTBE)	ND				1.0	0.25	ug/L			08/10/17 21:44	1
m,p-Xylene	ND				1.0	0.50	ug/L			08/10/17 21:44	1
Naphthalene	ND				1.0	0.40	ug/L			08/10/17 21:44	1
n-Butylbenzene	ND				1.0	0.40	ug/L			08/10/17 21:44	1
N-Propylbenzene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
o-Xylene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
p-Isopropyltoluene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
sec-Butylbenzene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
Styrene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
tert-Butylbenzene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
1,1,1,2-Tetrachloroethane	ND				1.0	0.25	ug/L			08/10/17 21:44	1
1,1,2,2-Tetrachloroethane	ND				1.0	0.25	ug/L			08/10/17 21:44	1
Tetrachloroethene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
Toluene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
trans-1,2-Dichloroethene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
trans-1,3-Dichloropropene	ND				0.50	0.25	ug/L			08/10/17 21:44	1
1,2,3-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 21:44	1
1,2,4-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 21:44	1
1,1,1-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 21:44	1
1,1,2-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 21:44	1
Trichloroethene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
Trichlorofluoromethane	ND				1.0	0.25	ug/L			08/10/17 21:44	1
1,2,3-Trichloropropane	ND				1.0	0.40	ug/L			08/10/17 21:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				5.0	0.50	ug/L			08/10/17 21:44	1
1,2,4-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
1,3,5-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 21:44	1
Vinyl chloride	ND				0.50	0.25	ug/L			08/10/17 21:44	1

Tentatively Identified Compound	MB	MB	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound			None		ug/L					08/10/17 21:44	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			89		80 - 120					08/10/17 21:44	1
Dibromofluoromethane (Surr)			112		76 - 132					08/10/17 21:44	1
Toluene-d8 (Surr)			96		80 - 128					08/10/17 21:44	1
1,2-Dichloroethane-d4 (Surr)			114		70 - 130					08/10/17 21:44	1

Lab Sample ID: LCS 440-422532/5

Matrix: Water

Analysis Batch: 422532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	Spiked	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Acetone	25.0		25.7		ug/L		103	10 - 150
Benzene	25.0		23.1		ug/L		92	68 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422532/5

Matrix: Water

Analysis Batch: 422532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Bromobenzene	25.0	27.9		ug/L		111	70 - 130	
Bromochloromethane	25.0	30.3		ug/L		121	70 - 130	
Bromodichloromethane	25.0	25.4		ug/L		101	70 - 132	
Bromoform	25.0	31.7		ug/L		127	60 - 148	
Bromomethane	25.0	28.5		ug/L		114	64 - 139	
Carbon tetrachloride	25.0	31.0		ug/L		124	60 - 150	
Chlorobenzene	25.0	25.3		ug/L		101	70 - 130	
Chloroethane	25.0	25.2		ug/L		101	64 - 135	
Chloroform	25.0	24.8		ug/L		99	70 - 130	
Chloromethane	25.0	23.4		ug/L		94	47 - 140	
2-Chlorotoluene	25.0	25.0		ug/L		100	70 - 130	
4-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130	
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 133	
cis-1,3-Dichloropropene	25.0	22.8		ug/L		91	70 - 133	
Dibromochloromethane	25.0	28.0		ug/L		112	69 - 145	
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		97	52 - 140	
1,2-Dibromoethane (EDB)	25.0	26.6		ug/L		106	70 - 130	
Dibromomethane	25.0	24.1		ug/L		96	70 - 130	
1,2-Dichlorobenzene	25.0	27.2		ug/L		109	70 - 130	
1,3-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130	
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
Dichlorodifluoromethane	25.0	34.9		ug/L		140	29 - 150	
1,1-Dichloroethane	25.0	23.0		ug/L		92	64 - 130	
1,2-Dichloroethane	25.0	26.0		ug/L		104	57 - 138	
1,1-Dichloroethene	25.0	26.3		ug/L		105	70 - 130	
1,2-Dichloropropane	25.0	20.9		ug/L		84	67 - 130	
1,3-Dichloropropane	25.0	21.7		ug/L		87	70 - 130	
2,2-Dichloropropane	25.0	27.9		ug/L		112	68 - 141	
1,1-Dichloropropene	25.0	25.9		ug/L		103	70 - 130	
Ethylbenzene	25.0	26.6		ug/L		106	70 - 130	
Hexachlorobutadiene	25.0	29.6		ug/L		118	10 - 150	
Isopropylbenzene	25.0	29.8		ug/L		119	70 - 136	
Methylene Chloride	25.0	22.0		ug/L		88	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	26.0		ug/L		104	63 - 131	
m,p-Xylene	25.0	27.7		ug/L		111	70 - 130	
Naphthalene	25.0	27.9		ug/L		112	60 - 140	
n-Butylbenzene	25.0	23.0		ug/L		92	65 - 150	
N-Propylbenzene	25.0	26.7		ug/L		107	67 - 139	
o-Xylene	25.0	28.3		ug/L		113	70 - 130	
p-Isopropyltoluene	25.0	27.9		ug/L		112	70 - 132	
sec-Butylbenzene	25.0	24.2		ug/L		97	70 - 138	
Styrene	25.0	25.7		ug/L		103	70 - 134	
tert-Butylbenzene	25.0	28.7		ug/L		115	70 - 130	
1,1,1,2-Tetrachloroethane	25.0	29.4		ug/L		118	60 - 141	
1,1,2,2-Tetrachloroethane	25.0	20.5		ug/L		82	63 - 130	
Tetrachloroethene	25.0	30.7		ug/L		123	70 - 130	
Toluene	25.0	26.7		ug/L		107	70 - 130	
trans-1,2-Dichloroethene	25.0	27.2		ug/L		109	70 - 130	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422532/5

Matrix: Water

Analysis Batch: 422532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier				Limits	
trans-1,3-Dichloropropene	25.0	23.6		ug/L		95	70 - 132	
1,2,3-Trichlorobenzene	25.0	28.9		ug/L		115	60 - 140	
1,2,4-Trichlorobenzene	25.0	28.2		ug/L		113	60 - 140	
1,1,1-Trichloroethane	25.0	29.3		ug/L		117	70 - 130	
1,1,2-Trichloroethane	25.0	22.1		ug/L		89	70 - 130	
Trichloroethene	25.0	28.9		ug/L		115	70 - 130	
Trichlorofluoromethane	25.0	31.6		ug/L		127	60 - 150	
1,2,3-Trichloropropane	25.0	26.5		ug/L		106	63 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.8		ug/L		107	60 - 140	
ne								
1,2,4-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 135	
1,3,5-Trimethylbenzene	25.0	25.6		ug/L		103	70 - 136	
Vinyl chloride	25.0	26.0		ug/L		104	59 - 133	

LCS LCS

Surrogate	Spike	LCS	LCS	Limits
	Added	Result	Qualifier	
4-Bromofluorobenzene (Surr)	90			80 - 120
Dibromofluoromethane (Surr)	108			76 - 132
Toluene-d8 (Surr)	98			80 - 128
1,2-Dichloroethane-d4 (Surr)	106			70 - 130

Lab Sample ID: LCS 440-422532/6

Matrix: Water

Analysis Batch: 422532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier				Limits	
Isopropyl alcohol	250	253		ug/L		101	49 - 142	

Surrogate	Spike	LCS	LCS	Limits
	Added	Result	Qualifier	
4-Bromofluorobenzene (Surr)	89			80 - 120
Dibromofluoromethane (Surr)	108			76 - 132
Toluene-d8 (Surr)	94			80 - 128
1,2-Dichloroethane-d4 (Surr)	111			70 - 130

Lab Sample ID: 440-189727-6 MS

Matrix: Water

Analysis Batch: 422532

Client Sample ID: OC_GW_DPE-5_20170807

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Acetone	ND		25.0	31.8		ug/L		127	10 - 150
Benzene	ND		25.0	24.0		ug/L		96	66 - 130
Bromobenzene	ND		25.0	28.6		ug/L		114	70 - 130
Bromochloromethane	ND		25.0	31.2		ug/L		125	70 - 130
Bromodichloromethane	ND		25.0	27.2		ug/L		109	70 - 138
Bromoform	ND		25.0	31.3		ug/L		125	59 - 150
Bromomethane	ND		25.0	28.0		ug/L		112	62 - 131
Carbon tetrachloride	ND		25.0	29.3		ug/L		117	60 - 150
Chlorobenzene	ND		25.0	24.6		ug/L		98	70 - 130
Chloroethane	ND		25.0	25.2		ug/L		101	68 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189727-6 MS

Client Sample ID: OC_GW_DPE-5_20170807

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 422532

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits	
	Result	Qualifier	Added	Result	Qualifier						
Chloroform	5.1		25.0	30.5		ug/L		102	70 - 130		
Chloromethane	ND		25.0	23.9		ug/L		95	39 - 144		
2-Chlorotoluene	ND		25.0	24.7		ug/L		99	70 - 130		
4-Chlorotoluene	ND		25.0	25.4		ug/L		102	70 - 130		
cis-1,2-Dichloroethene	ND		25.0	26.6		ug/L		106	70 - 130		
cis-1,3-Dichloropropene	ND		25.0	22.2		ug/L		89	70 - 133		
Dibromochloromethane	ND		25.0	27.7		ug/L		111	70 - 148		
1,2-Dibromo-3-Chloropropane	ND		25.0	23.5		ug/L		94	48 - 140		
1,2-Dibromoethane (EDB)	ND		25.0	25.2		ug/L		101	70 - 131		
Dibromomethane	ND		25.0	26.0		ug/L		104	70 - 130		
1,2-Dichlorobenzene	ND		25.0	28.3		ug/L		113	70 - 130		
1,3-Dichlorobenzene	ND		25.0	26.5		ug/L		106	70 - 130		
1,4-Dichlorobenzene	ND		25.0	26.5		ug/L		106	70 - 130		
Dichlorodifluoromethane	ND		25.0	30.8		ug/L		123	25 - 142		
1,1-Dichloroethane	ND		25.0	23.3		ug/L		93	65 - 130		
1,2-Dichloroethane	0.93	J	25.0	27.1		ug/L		105	56 - 146		
1,1-Dichloroethene	30		25.0	54.7		ug/L		97	70 - 130		
1,2-Dichloropropane	ND		25.0	21.9		ug/L		87	69 - 130		
1,3-Dichloropropane	ND		25.0	20.1		ug/L		81	70 - 130		
2,2-Dichloropropane	ND		25.0	25.8		ug/L		103	69 - 138		
1,1-Dichloropropene	ND		25.0	25.3		ug/L		101	64 - 130		
Ethylbenzene	ND		25.0	24.7		ug/L		99	70 - 130		
Hexachlorobutadiene	ND		25.0	27.9		ug/L		112	10 - 150		
Isopropyl alcohol	180	J F1	250	345		ug/L		138	46 - 142		
Isopropylbenzene	ND		25.0	27.1		ug/L		108	70 - 132		
Methylene Chloride	ND		25.0	25.3		ug/L		101	52 - 130		
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.8		ug/L		107	70 - 130		
m,p-Xylene	ND		25.0	25.7		ug/L		103	70 - 133		
Naphthalene	ND		25.0	28.0		ug/L		112	60 - 140		
n-Butylbenzene	ND		25.0	21.1		ug/L		84	61 - 149		
N-Propylbenzene	ND		25.0	25.6		ug/L		102	66 - 135		
o-Xylene	ND		25.0	26.7		ug/L		107	70 - 133		
p-Isopropyltoluene	ND		25.0	26.6		ug/L		107	70 - 130		
sec-Butylbenzene	ND		25.0	23.4		ug/L		94	67 - 134		
Styrene	ND		25.0	23.4		ug/L		94	29 - 150		
tert-Butylbenzene	ND		25.0	28.0		ug/L		112	70 - 130		
1,1,1,2-Tetrachloroethane	ND		25.0	28.9		ug/L		115	60 - 149		
1,1,2,2-Tetrachloroethane	ND		25.0	21.5		ug/L		86	63 - 130		
Tetrachloroethylene	160		25.0	169	4	ug/L		44	70 - 137		
Toluene	ND		25.0	24.7		ug/L		99	70 - 130		
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130		
trans-1,3-Dichloropropene	ND		25.0	23.5		ug/L		94	70 - 138		
1,2,3-Trichlorobenzene	ND		25.0	30.2		ug/L		121	60 - 140		
1,2,4-Trichlorobenzene	ND		25.0	28.2		ug/L		113	60 - 140		
1,1,1-Trichloroethane	ND		25.0	28.4		ug/L		114	70 - 130		
1,1,2-Trichloroethane	ND		25.0	21.6		ug/L		86	70 - 130		
Trichloroethene	12		25.0	40.6		ug/L		113	70 - 130		
Trichlorofluoromethane	7.7		25.0	35.7		ug/L		112	60 - 150		

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189727-6 MS

Matrix: Water

Analysis Batch: 422532

Client Sample ID: OC_GW_DPE-5_20170807

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier					
1,2,3-Trichloropropane	ND		25.0	25.9		ug/L		103	60 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.1		25.0	32.8		ug/L		95	60 - 140	
1,2,4-Trimethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130	
1,3,5-Trimethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130	
Vinyl chloride	ND		25.0	24.2		ug/L		97	50 - 137	
Surrogate										
4-Bromofluorobenzene (Surr)	86	%Recovery		MS	MS	Limits				
Dibromofluoromethane (Surr)	102					80 - 120				
Toluene-d8 (Surr)	77	X				76 - 132				
1,2-Dichloroethane-d4 (Surr)	95					80 - 128				
						70 - 130				

Lab Sample ID: 440-189727-6 MSD

Matrix: Water

Analysis Batch: 422532

Client Sample ID: OC_GW_DPE-5_20170807

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	ND		25.0	34.6		ug/L		138	10 - 150	9	35
Benzene	ND		25.0	23.6		ug/L		95	66 - 130	1	20
Bromobenzene	ND		25.0	28.3		ug/L		113	70 - 130	1	20
Bromochloromethane	ND		25.0	32.5		ug/L		130	70 - 130	4	25
Bromodichloromethane	ND		25.0	27.5		ug/L		110	70 - 138	1	20
Bromoform	ND		25.0	31.8		ug/L		127	59 - 150	2	25
Bromomethane	ND		25.0	28.4		ug/L		114	62 - 131	1	25
Carbon tetrachloride	ND		25.0	30.0		ug/L		120	60 - 150	2	25
Chlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130	2	20
Chloroethane	ND		25.0	25.5		ug/L		102	68 - 130	1	25
Chloroform	5.1		25.0	30.3		ug/L		101	70 - 130	1	20
Chloromethane	ND		25.0	23.4		ug/L		94	39 - 144	2	25
2-Chlorotoluene	ND		25.0	24.7		ug/L		99	70 - 130	0	20
4-Chlorotoluene	ND		25.0	24.8		ug/L		99	70 - 130	3	20
cis-1,2-Dichloroethene	ND		25.0	27.1		ug/L		108	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	21.9		ug/L		88	70 - 133	1	20
Dibromochloromethane	ND		25.0	28.0		ug/L		112	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		25.0	25.1		ug/L		100	48 - 140	7	30
1,2-Dibromoethane (EDB)	ND		25.0	25.2		ug/L		101	70 - 131	0	25
Dibromomethane	ND		25.0	25.3		ug/L		101	70 - 130	3	25
1,2-Dichlorobenzene	ND		25.0	28.2		ug/L		113	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130	1	20
1,4-Dichlorobenzene	ND		25.0	26.1		ug/L		104	70 - 130	2	20
Dichlorodifluoromethane	ND		25.0	31.7		ug/L		127	25 - 142	3	30
1,1-Dichloroethane	ND		25.0	22.9		ug/L		92	65 - 130	2	20
1,2-Dichloroethane	0.93	J	25.0	27.2		ug/L		105	56 - 146	0	20
1,1-Dichloroethene	30		25.0	53.8		ug/L		94	70 - 130	2	20
1,2-Dichloropropane	ND		25.0	21.5		ug/L		86	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	21.0		ug/L		84	70 - 130	4	25
2,2-Dichloropropane	ND		25.0	25.9		ug/L		103	69 - 138	0	25

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189727-6 MSD

Matrix: Water

Analysis Batch: 422532

Client Sample ID: OC_GW_DPE-5_20170807

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1-Dichloropropene	ND		25.0	26.0		ug/L		104	64 - 130	3	20
Ethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130	0	20
Hexachlorobutadiene	ND		25.0	27.8		ug/L		111	10 - 150	0	20
Isopropyl alcohol	180	J F1	250	365	F1	ug/L		146	46 - 142	6	40
Isopropylbenzene	ND		25.0	27.4		ug/L		109	70 - 132	1	20
Methylene Chloride	ND		25.0	23.7		ug/L		95	52 - 130	6	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.1		ug/L		108	70 - 130	1	25
m,p-Xylene	ND		25.0	26.0		ug/L		104	70 - 133	1	25
Naphthalene	ND		25.0	28.0		ug/L		112	60 - 140	0	30
n-Butylbenzene	ND		25.0	21.3		ug/L		85	61 - 149	1	20
N-Propylbenzene	ND		25.0	25.9		ug/L		104	66 - 135	1	20
o-Xylene	ND		25.0	26.8		ug/L		107	70 - 133	0	20
p-Isopropyltoluene	ND		25.0	26.5		ug/L		106	70 - 130	1	20
sec-Butylbenzene	ND		25.0	23.4		ug/L		93	67 - 134	0	20
Styrene	ND		25.0	23.7		ug/L		95	29 - 150	1	35
tert-Butylbenzene	ND		25.0	28.1		ug/L		112	70 - 130	0	20
1,1,1,2-Tetrachloroethane	ND		25.0	29.0		ug/L		116	60 - 149	0	20
1,1,2,2-Tetrachloroethane	ND		25.0	21.6		ug/L		86	63 - 130	0	30
Tetrachloroethene	160		25.0	168	4	ug/L		41	70 - 137	0	20
Toluene	ND		25.0	24.9		ug/L		100	70 - 130	1	20
trans-1,2-Dichloroethene	ND		25.0	26.9		ug/L		107	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	23.3		ug/L		93	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	29.2		ug/L		117	60 - 140	4	20
1,2,4-Trichlorobenzene	ND		25.0	27.6		ug/L		110	60 - 140	2	20
1,1,1-Trichloroethane	ND		25.0	28.4		ug/L		113	70 - 130	0	20
1,1,2-Trichloroethane	ND		25.0	21.8		ug/L		87	70 - 130	1	25
Trichloroethene	12		25.0	40.7		ug/L		114	70 - 130	0	20
Trichlorofluoromethane	7.7		25.0	36.5		ug/L		115	60 - 150	2	25
1,2,3-Trichloropropane	ND		25.0	26.6		ug/L		106	60 - 130	3	30
1,1,2-Trichloro-1,2,2-trifluoroetha ne	9.1		25.0	34.0		ug/L		100	60 - 140	4	20
1,2,4-Trimethylbenzene	ND		25.0	24.3		ug/L		97	70 - 130	1	25
1,3,5-Trimethylbenzene	ND		25.0	25.0		ug/L		100	70 - 130	1	20
Vinyl chloride	ND		25.0	24.4		ug/L		97	50 - 137	1	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		80 - 120
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	78	X	80 - 128
1,2-Dichloroethane-d4 (Surr)	95		70 - 130

Lab Sample ID: MB 440-422634/4

Matrix: Water

Analysis Batch: 422634

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					
Isopropyl alcohol	ND		250	180	ug/L	08/11/17 08:21	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-422634/4

Matrix: Water

Analysis Batch: 422634

Client Sample ID: Method Blank

Prep Type: Total/NA

Tentatively Identified Compound	MB		Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					08/11/17 08:21	1
Surrogate	MB	MB							
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		80 - 120					08/11/17 08:21	1
Dibromofluoromethane (Surr)	119		76 - 132					08/11/17 08:21	1
Toluene-d8 (Surr)	96		80 - 128					08/11/17 08:21	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					08/11/17 08:21	1

Lab Sample ID: LCS 440-422634/24

Matrix: Water

Analysis Batch: 422634

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike		LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier	Unit	D	%Rec.	Limits	
Isopropyl alcohol	250	243	J	ug/L		97	49 - 142	
Surrogate	LCS	LCS						
	%Recovery	Qualifier	Limits					
4-Bromofluorobenzene (Surr)	86		80 - 120					
Dibromofluoromethane (Surr)	108		76 - 132					
Toluene-d8 (Surr)	93		80 - 128					
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					

Lab Sample ID: 440-189762-B-10 MS

Matrix: Water

Analysis Batch: 422634

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Isopropyl alcohol	ND	F1	250	364	F1	ug/L		146	46 - 142
Surrogate	MS	MS							
	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	90		80 - 120						
Dibromofluoromethane (Surr)	109		76 - 132						
Toluene-d8 (Surr)	91		80 - 128						
1,2-Dichloroethane-d4 (Surr)	111		70 - 130						

Lab Sample ID: 440-189762-B-10 MSD

Matrix: Water

Analysis Batch: 422634

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Isopropyl alcohol	ND	F1	250	333		ug/L		133	46 - 142	9	40
Surrogate	MSD	MSD									
	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	92		80 - 120								
Dibromofluoromethane (Surr)	109		76 - 132								
Toluene-d8 (Surr)	91		80 - 128								
1,2-Dichloroethane-d4 (Surr)	105		70 - 130								

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-423019/4

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Isopropyl alcohol	ND		250	180	ug/L			08/14/17 09:38	1
Tentatively Identified Compound									
Tentatively Identified Compound	MB	MB							
	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	None		ug/L					08/14/17 09:38	1
Surrogate									
4-Bromofluorobenzene (Surr)	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	80 - 120					08/14/17 09:38	1
Dibromofluoromethane (Surr)	102		80 - 120					08/14/17 09:38	1
Toluene-d8 (Surr)	110		76 - 132					08/14/17 09:38	1
1,2-Dichloroethane-d4 (Surr)	111		80 - 128					08/14/17 09:38	1
	115		70 - 130					08/14/17 09:38	1

Lab Sample ID: LCS 440-423019/7

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike		LCS	LCS	Unit	D	%Rec.	%Rec.
	Result	Added						
Isopropyl alcohol		250	233	J	ug/L		93	49 - 142
Surrogate								
4-Bromofluorobenzene (Surr)	LCS	LCS	Limits					
	%Recovery	Qualifier	80 - 120					
Dibromofluoromethane (Surr)	94		80 - 120					
Toluene-d8 (Surr)	100		76 - 132					
1,2-Dichloroethane-d4 (Surr)	94		80 - 128					
	99		70 - 130					

Lab Sample ID: 440-190083-A-2 MS

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.
	Result	Qualifier	Added					
Isopropyl alcohol	ND		250	288		ug/L		115
Surrogate								
4-Bromofluorobenzene (Surr)	MS	MS	Limits					
	%Recovery	Qualifier	80 - 120					
Dibromofluoromethane (Surr)	93		80 - 120					
Toluene-d8 (Surr)	103		76 - 132					
1,2-Dichloroethane-d4 (Surr)	89		80 - 128					
	97		70 - 130					

Lab Sample ID: 440-190083-A-2 MSD

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.
	Result	Qualifier	Added					
Isopropyl alcohol	ND		250	294		ug/L		117
Surrogate								
4-Bromofluorobenzene (Surr)	MSD	MSD	Limits					
	%Recovery	Qualifier	80 - 120					

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190083-A-2 MSD

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	88		80 - 128
1,2-Dichloroethane-d4 (Surr)	96		70 - 130

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-421917/1-A

Matrix: Water

Analysis Batch: 422247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 421917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/08/17 10:17	08/09/17 15:34	1
<hr/>									
Surrogate									
1,4-Dioxane-d8 (Surr)									

Lab Sample ID: LCS 440-421917/2-A

Matrix: Water

Analysis Batch: 422247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 421917

Analyte	LCS	LCS	Spike Added	Result	LCSD	LCSD	D	%Rec.	RPD
Surrogate	%Recovery	Qualifier			Result	Qualifier	Unit	Limits	
1,4-Dioxane			2.00	1.15			ug/L	57	36 - 120
<hr/>									
Surrogate									
1,4-Dioxane-d8 (Surr)									

Lab Sample ID: LCSD 440-421917/3-A

Matrix: Water

Analysis Batch: 422247

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 421917

Analyte	LCSD	LCSD	Spike Added	Result	LCSD	LCSD	D	%Rec.	RPD
Surrogate	%Recovery	Qualifier			Result	Qualifier	Unit	Limits	Limit
1,4-Dioxane			2.00	1.50			ug/L	75	36 - 120
<hr/>									
Surrogate									
1,4-Dioxane-d8 (Surr)									

TestAmerica Irvine

QC Association Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

GC/MS VOA

Analysis Batch: 422105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189727-1	OC_GW_DPE-11D_20170807	Total/NA	Water	8260B	1
440-189727-1 - DL	OC_GW_DPE-11D_20170807	Total/NA	Water	8260B	2
440-189727-2	OC_GW_DPE-10D_20170807	Total/NA	Water	8260B	3
440-189727-2 - DL	OC_GW_DPE-10D_20170807	Total/NA	Water	8260B	4
440-189727-3	OC_GW_DPE-13D_20170807	Total/NA	Water	8260B	5
440-189727-4	OC_GW_DPE-8_20170807	Total/NA	Water	8260B	6
440-189727-5	OC_GW_DPE-7D_20170807	Total/NA	Water	8260B	7
MB 440-422105/4	Method Blank	Total/NA	Water	8260B	8
LCS 440-422105/5	Lab Control Sample	Total/NA	Water	8260B	9
440-189727-1 MS	OC_GW_DPE-11D_20170807	Total/NA	Water	8260B	10
440-189727-1 MSD	OC_GW_DPE-11D_20170807	Total/NA	Water	8260B	

Analysis Batch: 422532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189727-6	OC_GW_DPE-5_20170807	Total/NA	Water	8260B	11
440-189727-7	OC_GW_DPE-4_20170807	Total/NA	Water	8260B	12
440-189727-7 - DL	OC_GW_DPE-4_20170807	Total/NA	Water	8260B	
440-189727-8	OC_GW_DPE-9_20170807	Total/NA	Water	8260B	13
440-189727-8 - DL	OC_GW_DPE-9_20170807	Total/NA	Water	8260B	
440-189727-9	OC_GW_EW-5_20170807	Total/NA	Water	8260B	14
440-189727-10	OC_GW_EW-4_20170807	Total/NA	Water	8260B	
440-189727-11	OC_GW_TB1_20170807	Total/NA	Water	8260B	15
440-189727-12	OC_GW_TB2_20170807	Total/NA	Water	8260B	
440-189727-13	OC_GW_EW-3_20170807	Total/NA	Water	8260B	
MB 440-422532/26	Method Blank	Total/NA	Water	8260B	
LCS 440-422532/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-422532/6	Lab Control Sample	Total/NA	Water	8260B	
440-189727-6 MS	OC_GW_DPE-5_20170807	Total/NA	Water	8260B	
440-189727-6 MSD	OC_GW_DPE-5_20170807	Total/NA	Water	8260B	

Analysis Batch: 422634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189727-6 - RA	OC_GW_DPE-5_20170807	Total/NA	Water	8260B	
MB 440-422634/4	Method Blank	Total/NA	Water	8260B	
LCS 440-422634/24	Lab Control Sample	Total/NA	Water	8260B	
440-189762-B-10 MS	Matrix Spike	Total/NA	Water	8260B	
440-189762-B-10 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 423019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189727-1 - RA	OC_GW_DPE-11D_20170807	Total/NA	Water	8260B	
440-189727-2 - RA	OC_GW_DPE-10D_20170807	Total/NA	Water	8260B	
440-189727-3 - RA	OC_GW_DPE-13D_20170807	Total/NA	Water	8260B	
440-189727-4 - RA	OC_GW_DPE-8_20170807	Total/NA	Water	8260B	
440-189727-5 - RA	OC_GW_DPE-7D_20170807	Total/NA	Water	8260B	
MB 440-423019/4	Method Blank	Total/NA	Water	8260B	
LCS 440-423019/7	Lab Control Sample	Total/NA	Water	8260B	
440-190083-A-2 MS	Matrix Spike	Total/NA	Water	8260B	
440-190083-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

QC Association Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

GC/MS Semi VOA

Prep Batch: 421917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189727-1	OC_GW_DPE-11D_20170807	Total/NA	Water	3520C	5
440-189727-2	OC_GW_DPE-10D_20170807	Total/NA	Water	3520C	6
440-189727-3	OC_GW_DPE-13D_20170807	Total/NA	Water	3520C	7
440-189727-4	OC_GW_DPE-8_20170807	Total/NA	Water	3520C	8
440-189727-5	OC_GW_DPE-7D_20170807	Total/NA	Water	3520C	9
440-189727-6	OC_GW_DPE-5_20170807	Total/NA	Water	3520C	10
440-189727-7	OC_GW_DPE-4_20170807	Total/NA	Water	3520C	11
440-189727-8	OC_GW_DPE-9_20170807	Total/NA	Water	3520C	12
440-189727-9	OC_GW_EW-5_20170807	Total/NA	Water	3520C	13
440-189727-10	OC_GW_EW-4_20170807	Total/NA	Water	3520C	14
440-189727-13	OC_GW_EW-3_20170807	Total/NA	Water	3520C	15
MB 440-421917/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-421917/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-421917/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 422247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189727-1	OC_GW_DPE-11D_20170807	Total/NA	Water	8270C SIM	421917
440-189727-2	OC_GW_DPE-10D_20170807	Total/NA	Water	8270C SIM	421917
440-189727-3	OC_GW_DPE-13D_20170807	Total/NA	Water	8270C SIM	421917
440-189727-4	OC_GW_DPE-8_20170807	Total/NA	Water	8270C SIM	421917
440-189727-5	OC_GW_DPE-7D_20170807	Total/NA	Water	8270C SIM	421917
440-189727-6	OC_GW_DPE-5_20170807	Total/NA	Water	8270C SIM	421917
440-189727-7	OC_GW_DPE-4_20170807	Total/NA	Water	8270C SIM	421917
440-189727-8	OC_GW_DPE-9_20170807	Total/NA	Water	8270C SIM	421917
440-189727-9	OC_GW_EW-5_20170807	Total/NA	Water	8270C SIM	421917
440-189727-10	OC_GW_EW-4_20170807	Total/NA	Water	8270C SIM	421917
440-189727-13	OC_GW_EW-3_20170807	Total/NA	Water	8270C SIM	421917
MB 440-421917/1-A	Method Blank	Total/NA	Water	8270C SIM	421917
LCS 440-421917/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	421917
LCSD 440-421917/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	421917

Definitions/Glossary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189727-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

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 Irvine, CA 92614
 phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

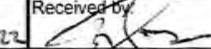
Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:						
Client Contact		Project Manager: Trent Henderson Tel/Fax: 949 453 1045/949 453 1047		Site Contact: Khalid Azhar Lab Contact: Danielle Roberts		Date: 8/7/2017
De Maximis - Jaime Dinello 1322 Scott St., Suite 104 San Diego, CA 92106 (562) 756-8149		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS				Carrier:
		TAT if different from Below <u>STD</u>				
		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				
Project Name: Omega Chemical - SemiAnn GWM Feb. 2017 Site: Omega Chemical P O #:						
Sample Identification						
OC_GW_EW-3_20170807	Sample Date 8/7/2017	Sample Time <u>0754</u>	Sample Type (C=Comp, G=Grab) Grab	Matrix GW	# of Cont. 5	<input type="checkbox"/> EPA 8260C - 1,4-Dioxane <input type="checkbox"/> EPA 8260B - VOCs + Fugitive <input type="checkbox"/> EPA 8260A MS/MS/MSD (Y/N) <input type="checkbox"/> Field Sampled (Y/N)
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_20170807	8/7/2017	Grab	GW	5	x x	
OC_GW_TB_20170807	8/7/2017	Grab	H ₂ O	2	x	
OC_GW_TB_20170807	8/7/2017	Grab	H ₂ O	2	x	
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other _____						
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		
Special Instructions/QC Requirements & Comments:						
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: <u>34A</u>		Cooler Temp. (°C): Obs'd: <u>-1</u> Cor'd: <u>-1</u> Therm ID No.: <u>7286</u> <u>1.4</u> <u>1.2</u> <u>1.4</u> <u>1.0</u>		
Relinquished by: <u>TCE</u>		Company: <u>34A</u> Date/Time: <u>8/7/17 1422</u>		Received by: <u>TCE</u> Date/Time: <u>8/7/17 1422</u>		
Relinquished by: <u>TCE</u>		Company: <u>TCE</u> Date/Time: <u>8/7/17 1740</u>		Received by: <u>TCE</u> Date/Time: <u>8/7/17 1740</u>		
Relinquished by: <u>TCE</u>		Company: <u>TCE</u> Date/Time: <u>8/7/17 1740</u>		Received in Laboratory by: <u>TCE</u> Date/Time: <u>8/7/17 1740</u> <u>UTC 8/7/17 TCE</u>		

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:					
Client Contact		Project Manager: Trent Henderson		Site Contact: Khalid Azhar	
De Maximis - Jaime Dinello 1322 Scott St., Suite 104 San Diego, CA 92106 (562) 756-8149		Tel/Fax: 949 453 1045/949 453 1047		Date: 8/7/2017	
		Analysis Turnaround Time		COC No: <u>1</u> of <u>2</u> COCs	
		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <u>STD</u> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sampler:	
Project Name: Omega Chemical - SemiAnn GWM <u>Feb. 2017</u> Site: Omega Chemical <u>Avg.</u> P O #:				For Lab Use Only: Walk-in Client: <input type="checkbox"/> Lab Sampling: <input type="checkbox"/>	
				Job / SDG No.:	
				Sample Specific Notes:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix
OC_GW_DPE-1D_20170807		8/7/2017	1200	Grab	GW
OC_GW_DPE-1D_20170807		8/7/2017	1155	Grab	GW
OC_GW_DPE-1D_20170807		8/7/2017	1131	Grab	GW
OC_GW_DPE-8_20170807		8/7/2017	1110	Grab	GW
OC_GW_DPE-7D_20170807		8/7/2017	1048	Grab	GW
OC_GW_DPE-5_20170807		8/7/2017	1018	Grab	GW
OC_GW_DPE-4_20170807		8/7/2017	1000	Grab	GW
OC_GW_DPE-9_20170807		8/7/2017	0925	Grab	GW
OC_GW_BW-S_20170807		8/7/2017	0830	Grab	GW
OC_GW_EW-4_20170807		8/7/2017	0814	Grab	GW
OC_GW_H2O_20170807		8/7/2017	0700	Grab	H2O
OC_GW_TW_20170807		8/7/2017	0700	Grab	H2O
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other					
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: Corr'd: Therm ID No.:	
Relinquished by: 		Company: <u>39A</u>	Date/Time: <u>8/7/17 1422</u>	Received by: 	Company: <u>JSC</u> Date/Time: <u>8/7/17 1422</u>
Relinquished by:		Company:	Date/Time:	Received by:	Company: Date/Time:
Relinquished by:		Company:	Date/Time:	Received in Laboratory by:	Company: Date/Time:

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-189727-1

Login Number: 189727

List Source: TestAmerica Irvine

List Number: 1

Creator: Avila, Stephanie 1

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
Sample custody seals, if present, are intact.	N/A	Not Present	3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-189818-1

Client Project/Site: Omega Chemical -GW/Semi Annual
Revision: 1

For:

de maximis, inc.

2365 Northside Drive, Suite C-100

San Diego, California 92108

Attn: Jaime Dinello

Authorized for release by:

9/6/2017 10:53:52 AM

Danielle Roberts, Senior Project Manager

(949)261-1022

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LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-189818-1	OC_GW_OW-3B_20170808	Water	08/08/17 08:35	08/08/17 17:40
440-189818-2	OC_GW_OW-8B_20170808	Water	08/08/17 11:10	08/08/17 17:40
440-189818-3	OC_GW_OW-8BK_20170808	Water	08/08/17 11:15	08/08/17 17:40
440-189818-4	OC_GW_OW-12N_20170808	Water	08/08/17 14:30	08/08/17 17:40
440-189818-5	OC_GW_TB_20170808	Water	08/08/17 07:00	08/08/17 17:40

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TestAmerica Irvine

Case Narrative

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Job ID: 440-189818-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-189818-1

Comments

No additional comments.

Receipt

The samples were received on 8/8/2017 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 440-422642 recovered above the upper control limit for Acetone. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: OC_GW_TB2_20170808 (440-189818-6) and (CCVIS 440-422642/2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-422122 and analytical batch 440-422519. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 440-422122 and analytical batch 440-422519 recovered outside control limits for the following analytes: 1,4-Dioxane. Laboratory control sample / laboratory control sample duplicate (LCS/LCSD) percent recovery is in control for affected analytes.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-3B_20170808

Lab Sample ID: 440-189818-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	7.7		1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_OW-8B_20170808

Lab Sample ID: 440-189818-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	6.3		1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_OW-8BK_20170808

Lab Sample ID: 440-189818-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	6.3		1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_OW-12N_20170808

Lab Sample ID: 440-189818-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11		10	10	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.35	J	1.0	0.25	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_TB_20170808

Lab Sample ID: 440-189818-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-3B_20170808

Lab Sample ID: 440-189818-1

Matrix: Water

Date Collected: 08/08/17 08:35

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/10/17 20:24	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 20:24	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 20:24	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 20:24	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 20:24	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 20:24	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 20:24	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 20:24	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 20:24	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 20:24	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 20:24	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 20:24	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 20:24	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 20:24	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 20:24	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Tetrachloroethene	7.7		1.0	0.25	ug/L			08/10/17 20:24	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-3B_20170808

Lab Sample ID: 440-189818-1

Matrix: Water

Date Collected: 08/08/17 08:35

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 20:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 20:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 20:24	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Trichloroethene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/10/17 20:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/10/17 20:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 20:24	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/10/17 20:24	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/10/17 20:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120					08/10/17 20:24	1
Dibromofluoromethane (Surr)	102		76 - 132					08/10/17 20:24	1
Toluene-d8 (Surr)	108		80 - 128					08/10/17 20:24	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130					08/10/17 20:24	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND	*	0.51	0.10	ug/L		08/09/17 08:05	08/10/17 16:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	60		36 - 90				08/09/17 08:05	08/10/17 16:08	1

Client Sample ID: OC_GW_OW-8B_20170808

Lab Sample ID: 440-189818-2

Matrix: Water

Date Collected: 08/08/17 11:10

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/10/17 21:48	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 21:48	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 21:48	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 21:48	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 21:48	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 21:48	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-8B_20170808

Lab Sample ID: 440-189818-2

Matrix: Water

Date Collected: 08/08/17 11:10

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 21:48	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 21:48	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 21:48	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 21:48	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 21:48	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 21:48	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 21:48	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 21:48	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 21:48	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 21:48	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Tetrachloroethene	6.3		1.0	0.25	ug/L			08/10/17 21:48	1
Toluene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 21:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 21:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 21:48	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Trichloroethene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/10/17 21:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/10/17 21:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 21:48	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/10/17 21:48	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-8B_20170808

Lab Sample ID: 440-189818-2

Matrix: Water

Date Collected: 08/08/17 11:10

Date Received: 08/08/17 17:40

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/10/17 21:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120					08/10/17 21:48	1
Dibromofluoromethane (Surr)	103		76 - 132					08/10/17 21:48	1
Toluene-d8 (Surr)	107		80 - 128					08/10/17 21:48	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130					08/10/17 21:48	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND *		0.51	0.10	ug/L		08/09/17 08:05	08/10/17 16:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	65		36 - 90				08/09/17 08:05	08/10/17 16:30	1

Client Sample ID: OC_GW_OW-8BK_20170808

Lab Sample ID: 440-189818-3

Matrix: Water

Date Collected: 08/08/17 11:15

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L		08/10/17 22:16		1
Benzene	ND		0.50	0.25	ug/L		08/10/17 22:16		1
Bromobenzene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Bromochloromethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Bromodichloromethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Bromoform	ND		1.0	0.40	ug/L		08/10/17 22:16		1
Bromomethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Carbon tetrachloride	ND		0.50	0.25	ug/L		08/10/17 22:16		1
Chlorobenzene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Chloroethane	ND		1.0	0.40	ug/L		08/10/17 22:16		1
Chloroform	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Chloromethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
2-Chlorotoluene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
4-Chlorotoluene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L		08/10/17 22:16		1
Dibromochloromethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L		08/10/17 22:16		1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Dibromomethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L		08/10/17 22:16		1
1,1-Dichloroethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,2-Dichloroethane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,1-Dichloroethene	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,2-Dichloropropane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
1,3-Dichloropropane	ND		1.0	0.25	ug/L		08/10/17 22:16		1
2,2-Dichloropropane	ND		1.0	0.40	ug/L		08/10/17 22:16		1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-8BK_20170808

Lab Sample ID: 440-189818-3

Matrix: Water

Date Collected: 08/08/17 11:15

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 22:16	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 22:16	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 22:16	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 22:16	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 22:16	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 22:16	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 22:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Tetrachloroethene	6.3		1.0	0.25	ug/L			08/10/17 22:16	1
Toluene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 22:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 22:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 22:16	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:16	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Trichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/10/17 22:16	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/10/17 22:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/10/17 22:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:16	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/10/17 22:16	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/10/17 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120			1
Dibromofluoromethane (Surr)	103		76 - 132			1
Toluene-d8 (Surr)	108		80 - 128			1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130			1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND	*	0.51	0.10	ug/L		08/09/17 08:05	08/10/17 16:53	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8 (Surr)	61		36 - 90	08/09/17 08:05	08/10/17 16:53	1			

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-12N_20170808

Lab Sample ID: 440-189818-4

Matrix: Water

Date Collected: 08/08/17 14:30

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	11		10	10	ug/L			08/10/17 22:43	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 22:43	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 22:43	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 22:43	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 22:43	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 22:43	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 22:43	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 22:43	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 22:43	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 22:43	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 22:43	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 22:43	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 22:43	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 22:43	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 22:43	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Tetrachloroethene	0.35	J	1.0	0.25	ug/L			08/10/17 22:43	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-12N_20170808

Lab Sample ID: 440-189818-4

Matrix: Water

Date Collected: 08/08/17 14:30

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 22:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 22:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 22:43	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Trichloroethene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/10/17 22:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/10/17 22:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 22:43	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/10/17 22:43	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/10/17 22:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120					08/10/17 22:43	1
Dibromofluoromethane (Surr)	103		76 - 132					08/10/17 22:43	1
Toluene-d8 (Surr)	105		80 - 128					08/10/17 22:43	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130					08/10/17 22:43	1

Client Sample ID: OC_GW_TB_20170808

Lab Sample ID: 440-189818-5

Matrix: Water

Date Collected: 08/08/17 07:00

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/10/17 23:11	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 23:11	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 23:11	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 23:11	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 23:11	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 23:11	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 23:11	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_TB_20170808

Lab Sample ID: 440-189818-5

Matrix: Water

Date Collected: 08/08/17 07:00

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 23:11	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 23:11	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 23:11	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 23:11	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 23:11	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 23:11	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 23:11	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 23:11	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Toluene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 23:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 23:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/10/17 23:11	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Trichloroethene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/10/17 23:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/10/17 23:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/10/17 23:11	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/10/17 23:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/10/17 23:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120			
Dibromofluoromethane (Surr)	102		76 - 132			

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_TB_20170808

Lab Sample ID: 440-189818-5

Matrix: Water

Date Collected: 08/08/17 07:00

Date Received: 08/08/17 17:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		80 - 128		08/10/17 23:11	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		08/10/17 23:11	1

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TestAmerica Irvine

Surrogate Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-189818-1	OC_GW_OW-3B_20170808	104	102	108	103
440-189818-1 MS	OC_GW_OW-3B_20170808	103	104	104	106
440-189818-1 MSD	OC_GW_OW-3B_20170808	101	103	103	103
440-189818-2	OC_GW_OW-8B_20170808	104	103	107	105
440-189818-3	OC_GW_OW-8BK_20170808	104	103	108	107
440-189818-4	OC_GW_OW-12N_20170808	103	103	105	104
440-189818-5	OC_GW_TB_20170808	104	102	106	109
LCS 440-422566/5	Lab Control Sample	103	100	105	101
LCS 440-422566/6	Lab Control Sample	104	102	106	104
MB 440-422566/4	Method Blank	104	102	109	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		14DD8 (36-90)			
440-189818-1	OC_GW_OW-3B_20170808	60			
440-189818-2	OC_GW_OW-8B_20170808	65			
440-189818-3	OC_GW_OW-8BK_20170808	61			
LCS 440-422122/2-A	Lab Control Sample	49			
LCSD 440-422122/3-A	Lab Control Sample Dup	73			
MB 440-422122/1-A	Method Blank	78			

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

TestAmerica Irvine

Method Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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TestAmerica Irvine

Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Client Sample ID: OC_GW_OW-3B_20170808

Lab Sample ID: 440-189818-1

Matrix: Water

Date Collected: 08/08/17 08:35

Date Received: 08/08/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/10/17 20:24	JB	TAL IRV
Total/NA	Prep	3520C			980 mL	1.0 mL	422122	08/09/17 08:05	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422519	08/10/17 16:08	TL	TAL IRV

Client Sample ID: OC_GW_OW-8B_20170808

Lab Sample ID: 440-189818-2

Matrix: Water

Date Collected: 08/08/17 11:10

Date Received: 08/08/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/10/17 21:48	JB	TAL IRV
Total/NA	Prep	3520C			980 mL	1.0 mL	422122	08/09/17 08:05	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422519	08/10/17 16:30	TL	TAL IRV

Client Sample ID: OC_GW_OW-8BK_20170808

Lab Sample ID: 440-189818-3

Matrix: Water

Date Collected: 08/08/17 11:15

Date Received: 08/08/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/10/17 22:16	JB	TAL IRV
Total/NA	Prep	3520C			975 mL	1.0 mL	422122	08/09/17 08:05	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422519	08/10/17 16:53	TL	TAL IRV

Client Sample ID: OC_GW_OW-12N_20170808

Lab Sample ID: 440-189818-4

Matrix: Water

Date Collected: 08/08/17 14:30

Date Received: 08/08/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/10/17 22:43	JB	TAL IRV

Client Sample ID: OC_GW_TB_20170808

Lab Sample ID: 440-189818-5

Matrix: Water

Date Collected: 08/08/17 07:00

Date Received: 08/08/17 17:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/10/17 23:11	JB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-422566/4

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/10/17 19:00	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 19:00	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 19:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 19:00	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 19:00	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 19:00	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 19:00	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 19:00	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 19:00	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-422566/4

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Tetrachloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Toluene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
trans-1,2-Dichloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
trans-1,3-Dichloropropene	ND				0.50	0.25	ug/L			08/10/17 19:00	1
1,2,3-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,2,4-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,1,1-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,1,2-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Trichloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Trichlorofluoromethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,2,3-Trichloropropane	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				5.0	0.50	ug/L			08/10/17 19:00	1
1,2,4-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,3,5-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Vinyl chloride	ND				0.50	0.25	ug/L			08/10/17 19:00	1

Tentatively Identified Compound	MB	MB	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Tentatively Identified Compound	None				ug/L					08/10/17 19:00	1
Surrogate											
Surrogate											
4-Bromofluorobenzene (Surr)	104				80 - 120				Prepared	08/10/17 19:00	1
Dibromofluoromethane (Surr)	102				76 - 132					08/10/17 19:00	1
Toluene-d8 (Surr)	109				80 - 128					08/10/17 19:00	1
1,2-Dichloroethane-d4 (Surr)	103				70 - 130					08/10/17 19:00	1

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
	Result	Qualifier								
Acetone			25.0	24.1		ug/L		96	10 - 150	
Benzene			25.0	25.0		ug/L		100	68 - 130	
Bromobenzene			25.0	25.1		ug/L		100	70 - 130	
Bromochloromethane			25.0	24.8		ug/L		99	70 - 130	
Bromodichloromethane			25.0	26.4		ug/L		106	70 - 132	
Bromoform			25.0	25.7		ug/L		103	60 - 148	
Bromomethane			25.0	24.5		ug/L		98	64 - 139	
Carbon tetrachloride			25.0	25.3		ug/L		101	60 - 150	
Chlorobenzene			25.0	25.4		ug/L		102	70 - 130	
Chloroethane			25.0	23.2		ug/L		93	64 - 135	
Chloroform			25.0	25.3		ug/L		101	70 - 130	
Chloromethane			25.0	24.1		ug/L		96	47 - 140	
2-Chlorotoluene			25.0	24.8		ug/L		99	70 - 130	
4-Chlorotoluene			25.0	25.4		ug/L		102	70 - 130	
cis-1,2-Dichloroethene			25.0	25.4		ug/L		102	70 - 133	
cis-1,3-Dichloropropene			25.0	27.6		ug/L		110	70 - 133	
Dibromochloromethane			25.0	27.0		ug/L		108	69 - 145	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	52 - 140	
1,2-Dibromoethane (EDB)	25.0	25.6		ug/L		102	70 - 130	
Dibromomethane	25.0	25.0		ug/L		100	70 - 130	
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
Dichlorodifluoromethane	25.0	20.8		ug/L		83	29 - 150	
1,1-Dichloroethane	25.0	25.6		ug/L		102	64 - 130	
1,2-Dichloroethane	25.0	26.4		ug/L		105	57 - 138	
1,1-Dichloroethene	25.0	23.3		ug/L		93	70 - 130	
1,2-Dichloropropane	25.0	25.4		ug/L		102	67 - 130	
1,3-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	
2,2-Dichloropropane	25.0	25.6		ug/L		102	68 - 141	
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	
Ethylbenzene	25.0	25.5		ug/L		102	70 - 130	
Hexachlorobutadiene	25.0	25.0		ug/L		100	10 - 150	
Isopropylbenzene	25.0	25.3		ug/L		101	70 - 136	
Methylene Chloride	25.0	23.3		ug/L		93	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	25.2		ug/L		101	63 - 131	
m,p-Xylene	25.0	25.5		ug/L		102	70 - 130	
Naphthalene	25.0	24.4		ug/L		98	60 - 140	
n-Butylbenzene	25.0	25.7		ug/L		103	65 - 150	
N-Propylbenzene	25.0	25.3		ug/L		101	67 - 139	
o-Xylene	25.0	25.4		ug/L		102	70 - 130	
p-Isopropyltoluene	25.0	24.8		ug/L		99	70 - 132	
sec-Butylbenzene	25.0	25.3		ug/L		101	70 - 138	
Styrene	25.0	25.9		ug/L		103	70 - 134	
tert-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		108	60 - 141	
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130	
Tetrachloroethene	25.0	25.2		ug/L		101	70 - 130	
Toluene	25.0	25.1		ug/L		101	70 - 130	
trans-1,2-Dichloroethene	25.0	25.4		ug/L		101	70 - 130	
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 132	
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140	
1,2,4-Trichlorobenzene	25.0	25.7		ug/L		103	60 - 140	
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	
1,1,2-Trichloroethane	25.0	26.5		ug/L		106	70 - 130	
Trichloroethene	25.0	25.7		ug/L		103	70 - 130	
Trichlorofluoromethane	25.0	23.6		ug/L		94	60 - 150	
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	63 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.8		ug/L		95	60 - 140	
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 135	
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 136	
Vinyl chloride	25.0	26.2		ug/L		105	59 - 133	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	100		76 - 132
Toluene-d8 (Surr)	105		80 - 128
1,2-Dichloroethane-d4 (Surr)	101		70 - 130

Lab Sample ID: LCS 440-422566/6

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Isopropyl alcohol	250	244	J	ug/L	97	49 - 142	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	106		80 - 128
1,2-Dichloroethane-d4 (Surr)	104		70 - 130

Lab Sample ID: 440-189818-1 MS

Matrix: Water

Analysis Batch: 422566

Client Sample ID: OC_GW_OW-3B_20170808

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Acetone	ND		25.0	36.7		ug/L	147	10 - 150	
Benzene	ND		25.0	25.2		ug/L	101	66 - 130	
Bromobenzene	ND		25.0	25.1		ug/L	100	70 - 130	
Bromochloromethane	ND		25.0	25.7		ug/L	103	70 - 130	
Bromodichloromethane	ND		25.0	27.6		ug/L	110	70 - 138	
Bromoform	ND		25.0	27.6		ug/L	110	59 - 150	
Bromomethane	ND		25.0	23.8		ug/L	95	62 - 131	
Carbon tetrachloride	ND		25.0	25.4		ug/L	102	60 - 150	
Chlorobenzene	ND		25.0	25.6		ug/L	102	70 - 130	
Chloroethane	ND		25.0	23.1		ug/L	92	68 - 130	
Chloroform	ND		25.0	25.7		ug/L	103	70 - 130	
Chloromethane	ND		25.0	24.7		ug/L	99	39 - 144	
2-Chlorotoluene	ND		25.0	24.6		ug/L	99	70 - 130	
4-Chlorotoluene	ND		25.0	25.2		ug/L	101	70 - 130	
cis-1,2-Dichloroethene	ND		25.0	26.0		ug/L	104	70 - 130	
cis-1,3-Dichloropropene	ND		25.0	27.9		ug/L	112	70 - 133	
Dibromochloromethane	ND		25.0	28.5		ug/L	114	70 - 148	
1,2-Dibromo-3-Chloropropane	ND		25.0	27.9		ug/L	112	48 - 140	
1,2-Dibromoethane (EDB)	ND		25.0	27.5		ug/L	110	70 - 131	
Dibromomethane	ND		25.0	26.4		ug/L	106	70 - 130	
1,2-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	
1,3-Dichlorobenzene	ND		25.0	25.3		ug/L	101	70 - 130	
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L	103	70 - 130	
Dichlorodifluoromethane	ND		25.0	20.2		ug/L	81	25 - 142	
1,1-Dichloroethane	ND		25.0	25.5		ug/L	102	65 - 130	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-1 MS

Matrix: Water

Analysis Batch: 422566

Client Sample ID: OC_GW_OW-3B_20170808

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Limits		
	Result	Qualifier	Added	Result	Qualifier						
1,2-Dichloroethane	ND		25.0	27.6		ug/L		110	56 - 146		
1,1-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130		
1,2-Dichloropropane	ND		25.0	26.2		ug/L		105	69 - 130		
1,3-Dichloropropane	ND		25.0	27.5		ug/L		110	70 - 130		
2,2-Dichloropropane	ND		25.0	25.9		ug/L		104	69 - 138		
1,1-Dichloropropene	ND		25.0	26.0		ug/L		104	64 - 130		
Ethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130		
Hexachlorobutadiene	ND		25.0	25.5		ug/L		102	10 - 150		
Isopropyl alcohol	ND		250	299		ug/L		120	46 - 142		
Isopropylbenzene	ND		25.0	25.2		ug/L		101	70 - 132		
Methylene Chloride	ND		25.0	24.0		ug/L		96	52 - 130		
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.8		ug/L		111	70 - 130		
m,p-Xylene	ND		25.0	25.4		ug/L		102	70 - 133		
Naphthalene	ND		25.0	25.9		ug/L		104	60 - 140		
n-Butylbenzene	ND		25.0	25.9		ug/L		104	61 - 149		
N-Propylbenzene	ND		25.0	24.9		ug/L		99	66 - 135		
o-Xylene	ND		25.0	25.5		ug/L		102	70 - 133		
p-Isopropyltoluene	ND		25.0	24.9		ug/L		100	70 - 130		
sec-Butylbenzene	ND		25.0	25.3		ug/L		101	67 - 134		
Styrene	ND		25.0	24.6		ug/L		98	29 - 150		
tert-Butylbenzene	ND		25.0	24.8		ug/L		99	70 - 130		
1,1,1,2-Tetrachloroethane	ND		25.0	27.1		ug/L		108	60 - 149		
1,1,2,2-Tetrachloroethane	ND		25.0	26.7		ug/L		107	63 - 130		
Tetrachloroethene	7.7		25.0	33.4		ug/L		103	70 - 137		
Toluene	ND		25.0	25.3		ug/L		101	70 - 130		
trans-1,2-Dichloroethene	ND		25.0	25.4		ug/L		102	70 - 130		
trans-1,3-Dichloropropene	ND		25.0	28.1		ug/L		113	70 - 138		
1,2,3-Trichlorobenzene	ND		25.0	27.2		ug/L		109	60 - 140		
1,2,4-Trichlorobenzene	ND		25.0	26.8		ug/L		107	60 - 140		
1,1,1-Trichloroethane	ND		25.0	25.3		ug/L		101	70 - 130		
1,1,2-Trichloroethane	ND		25.0	28.1		ug/L		112	70 - 130		
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130		
Trichlorofluoromethane	ND		25.0	23.9		ug/L		96	60 - 150		
1,2,3-Trichloropropane	ND		25.0	26.6		ug/L		107	60 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.0		ug/L		96	60 - 140		
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130		
1,3,5-Trimethylbenzene	ND		25.0	24.5		ug/L		98	70 - 130		
Vinyl chloride	ND		25.0	22.6		ug/L		90	50 - 137		

MS **MS**

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	104		76 - 132
Toluene-d8 (Surr)	104		80 - 128
1,2-Dichloroethane-d4 (Surr)	106		70 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-1 MSD

Matrix: Water

Analysis Batch: 422566

Client Sample ID: OC_GW_OW-3B_20170808

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Acetone	ND		25.0	33.5		ug/L	134	10 - 150	9	35	
Benzene	ND		25.0	25.8		ug/L	103	66 - 130	3	20	
Bromobenzene	ND		25.0	25.7		ug/L	103	70 - 130	2	20	
Bromochloromethane	ND		25.0	25.8		ug/L	103	70 - 130	0	25	
Bromodichloromethane	ND		25.0	27.4		ug/L	110	70 - 138	1	20	
Bromoform	ND		25.0	26.4		ug/L	106	59 - 150	4	25	
Bromomethane	ND		25.0	24.5		ug/L	98	62 - 131	3	25	
Carbon tetrachloride	ND		25.0	26.3		ug/L	105	60 - 150	4	25	
Chlorobenzene	ND		25.0	25.9		ug/L	104	70 - 130	1	20	
Chloroethane	ND		25.0	23.6		ug/L	95	68 - 130	2	25	
Chloroform	ND		25.0	26.3		ug/L	105	70 - 130	2	20	
Chloromethane	ND		25.0	24.8		ug/L	99	39 - 144	1	25	
2-Chlorotoluene	ND		25.0	25.2		ug/L	101	70 - 130	2	20	
4-Chlorotoluene	ND		25.0	25.7		ug/L	103	70 - 130	2	20	
cis-1,2-Dichloroethene	ND		25.0	26.7		ug/L	107	70 - 130	3	20	
cis-1,3-Dichloropropene	ND		25.0	27.7		ug/L	111	70 - 133	1	20	
Dibromochloromethane	ND		25.0	28.2		ug/L	113	70 - 148	1	25	
1,2-Dibromo-3-Chloropropane	ND		25.0	25.5		ug/L	102	48 - 140	9	30	
1,2-Dibromoethane (EDB)	ND		25.0	26.5		ug/L	106	70 - 131	4	25	
Dibromomethane	ND		25.0	25.8		ug/L	103	70 - 130	2	25	
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L	105	70 - 130	0	20	
1,3-Dichlorobenzene	ND		25.0	25.8		ug/L	103	70 - 130	2	20	
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	2	20	
Dichlorodifluoromethane	ND		25.0	20.5		ug/L	82	25 - 142	1	30	
1,1-Dichloroethane	ND		25.0	26.2		ug/L	105	65 - 130	3	20	
1,2-Dichloroethane	ND		25.0	27.1		ug/L	108	56 - 146	2	20	
1,1-Dichloroethene	ND		25.0	25.8		ug/L	103	70 - 130	2	20	
1,2-Dichloropropane	ND		25.0	26.3		ug/L	105	69 - 130	1	20	
1,3-Dichloropropane	ND		25.0	26.7		ug/L	107	70 - 130	3	25	
2,2-Dichloropropane	ND		25.0	26.8		ug/L	107	69 - 138	3	25	
1,1-Dichloropropene	ND		25.0	27.0		ug/L	108	64 - 130	4	20	
Ethylbenzene	ND		25.0	25.9		ug/L	103	70 - 130	2	20	
Hexachlorobutadiene	ND		25.0	26.1		ug/L	104	10 - 150	2	20	
Isopropyl alcohol	ND		250	312		ug/L	125	46 - 142	4	40	
Isopropylbenzene	ND		25.0	25.9		ug/L	104	70 - 132	3	20	
Methylene Chloride	ND		25.0	24.1		ug/L	96	52 - 130	1	20	
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.5		ug/L	110	70 - 130	1	25	
m,p-Xylene	ND		25.0	25.8		ug/L	103	70 - 133	1	25	
Naphthalene	ND		25.0	24.5		ug/L	98	60 - 140	6	30	
n-Butylbenzene	ND		25.0	26.6		ug/L	106	61 - 149	3	20	
N-Propylbenzene	ND		25.0	26.0		ug/L	104	66 - 135	4	20	
o-Xylene	ND		25.0	25.9		ug/L	103	70 - 133	1	20	
p-Isopropyltoluene	ND		25.0	25.6		ug/L	103	70 - 130	3	20	
sec-Butylbenzene	ND		25.0	25.9		ug/L	104	67 - 134	2	20	
Styrene	ND		25.0	23.5		ug/L	94	29 - 150	5	35	
tert-Butylbenzene	ND		25.0	25.8		ug/L	103	70 - 130	4	20	
1,1,1,2-Tetrachloroethane	ND		25.0	27.2		ug/L	109	60 - 149	1	20	
1,1,2,2-Tetrachloroethane	ND		25.0	25.6		ug/L	102	63 - 130	4	30	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-1 MSD

Matrix: Water

Analysis Batch: 422566

Client Sample ID: OC_GW_OW-3B_20170808

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Tetrachloroethene	7.7		25.0	33.5		ug/L		103	70 - 137	0	20
Toluene	ND		25.0	25.8		ug/L		103	70 - 130	2	20
trans-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	27.8		ug/L		111	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.1		ug/L		109	60 - 140	0	20
1,2,4-Trichlorobenzene	ND		25.0	26.7		ug/L		107	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	26.3		ug/L		105	70 - 130	4	20
1,1,2-Trichloroethane	ND		25.0	27.1		ug/L		108	70 - 130	4	25
Trichloroethene	ND		25.0	26.0		ug/L		104	70 - 130	4	20
Trichlorofluoromethane	ND		25.0	24.8		ug/L		99	60 - 150	3	25
1,2,3-Trichloropropane	ND		25.0	25.4		ug/L		101	60 - 130	5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.9		ug/L		100	60 - 140	4	20
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.2		ug/L		97	70 - 130	1	25
1,3,5-Trimethylbenzene	ND		25.0	25.3		ug/L		101	70 - 130	3	20
Vinyl chloride	ND		25.0	23.3		ug/L		93	50 - 137	3	30

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	103		76 - 132
Toluene-d8 (Surr)	103		80 - 128
1,2-Dichloroethane-d4 (Surr)	103		70 - 130

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-422122/1-A

Matrix: Water

Analysis Batch: 422519

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 422122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/09/17 08:05	08/10/17 15:02	1
<hr/>									
<hr/>									
Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac			
1,4-Dioxane-d8 (Surr)	78		36 - 90	08/09/17 08:05	08/10/17 15:02	1			

Lab Sample ID: LCS 440-422122/2-A

Matrix: Water

Analysis Batch: 422519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 422122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	2.00	0.950		ug/L		48	36 - 120
<hr/>							
<hr/>							
Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits				
1,4-Dioxane-d8 (Surr)	49		36 - 90				

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 440-422122/3-A

Matrix: Water

Analysis Batch: 422519

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 422122

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	RPD	Limit
1,4-Dioxane	2.00	1.40	*	ug/L	70	36 - 120	38	35	
Surrogate	%Recovery	LCSD Qualifer	Limits						
1,4-Dioxane-d8 (Surr)	73		36 - 90						

QC Association Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

GC/MS VOA

Analysis Batch: 422566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189818-1	OC_GW_OW-3B_20170808	Total/NA	Water	8260B	
440-189818-2	OC_GW_OW-8B_20170808	Total/NA	Water	8260B	
440-189818-3	OC_GW_OW-8BK_20170808	Total/NA	Water	8260B	
440-189818-4	OC_GW_OW-12N_20170808	Total/NA	Water	8260B	
440-189818-5	OC_GW_TB_20170808	Total/NA	Water	8260B	
MB 440-422566/4	Method Blank	Total/NA	Water	8260B	
LCS 440-422566/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-422566/6	Lab Control Sample	Total/NA	Water	8260B	
440-189818-1 MS	OC_GW_OW-3B_20170808	Total/NA	Water	8260B	
440-189818-1 MSD	OC_GW_OW-3B_20170808	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 422122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189818-1	OC_GW_OW-3B_20170808	Total/NA	Water	3520C	
440-189818-2	OC_GW_OW-8B_20170808	Total/NA	Water	3520C	
440-189818-3	OC_GW_OW-8BK_20170808	Total/NA	Water	3520C	
MB 440-422122/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-422122/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-422122/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 422519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189818-1	OC_GW_OW-3B_20170808	Total/NA	Water	8270C SIM	422122
440-189818-2	OC_GW_OW-8B_20170808	Total/NA	Water	8270C SIM	422122
440-189818-3	OC_GW_OW-8BK_20170808	Total/NA	Water	8270C SIM	422122
MB 440-422122/1-A	Method Blank	Total/NA	Water	8270C SIM	422122
LCS 440-422122/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	422122
LCSD 440-422122/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	422122

Definitions/Glossary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189818-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

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 17461 Derian Ave
 Suite 100
 Irvine, CA 92614
 phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
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TestAmerica Laboratories, Inc.

Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:																																																																													
Client Contact De Maximis - Jaime Dinello 1322 Scott St., Suite 104 San Diego, CA 92106 (562) 756-8149 Project Name: Omega Chemical - SemiAnn GWM Feb. 2017 Site: Omega Chemical P O #:		Project Manager: Trent Henderson Tel/Fax: 949 453 1045/949 453 1047 Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <u>STD</u> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Khalid Azhar Lab Contact: Danielle Roberts Date: 8/8/2017 Carrier: COC No: <u>1</u> of <u>1</u> COCs Sampler: For Lab Use Only: Walk-in Client: <input type="checkbox"/> Lab Sampling: <input type="checkbox"/>																																																																									
Sample Identification <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=Grab)</th> <th>Matrix</th> <th># of Cont.</th> </tr> </thead> <tbody> <tr> <td>OC_GW_DW-30_20170808</td> <td>8/8/2017</td> <td>0835</td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_DW-80_20170808</td> <td>8/8/2017</td> <td>1110</td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_DW-85_20170808</td> <td>8/8/2017</td> <td>1115</td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_DW-120_20170808</td> <td>8/8/2017</td> <td>1430</td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_201708</td> <td>8/ /2017</td> <td></td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_201708</td> <td>8/ /2017</td> <td></td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_201708</td> <td>8/ /2017</td> <td></td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_201708</td> <td>8/ /2017</td> <td></td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_201708</td> <td>8/ /2017</td> <td></td> <td>Grab</td> <td>GW</td> <td>5</td> </tr> <tr> <td>OC_GW_TB1_20170808</td> <td>8/8/2017</td> <td>0700</td> <td>Grab</td> <td>H2O</td> <td>2</td> </tr> <tr> <td>OC_GW_TB2_201708</td> <td>8/ /2017</td> <td></td> <td>Grab</td> <td>H2O</td> <td>2</td> </tr> </tbody> </table>							Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	OC_GW_DW-30_20170808	8/8/2017	0835	Grab	GW	5	OC_GW_DW-80_20170808	8/8/2017	1110	Grab	GW	5	OC_GW_DW-85_20170808	8/8/2017	1115	Grab	GW	5	OC_GW_DW-120_20170808	8/8/2017	1430	Grab	GW	5	OC_GW_201708	8/ /2017		Grab	GW	5	OC_GW_201708	8/ /2017		Grab	GW	5	OC_GW_201708	8/ /2017		Grab	GW	5	OC_GW_201708	8/ /2017		Grab	GW	5	OC_GW_201708	8/ /2017		Grab	GW	5	OC_GW_TB1_20170808	8/8/2017	0700	Grab	H2O	2	OC_GW_TB2_201708	8/ /2017		Grab	H2O	2
	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.																																																																								
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OC_GW_TB2_201708	8/ /2017		Grab	H2O	2																																																																								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other																																																																													
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months																																																																										
Special Instructions/QC Requirements & Comments:																																																																													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: <u>JAD</u>		Cooler Temp. (°C): Obs'd: <u>5.5</u> Corr'd: <u>4.9</u> Therm ID No.: <u>12-86</u>																																																																									
Relinquished by: <u>JAD</u>		Company: <u>JAD</u> Date/Time: <u>8/8/17 1440</u>		Received by: <u>JAD</u> Company: <u>JAD</u> Date/Time: <u>8-8-17 1440</u>																																																																									
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Relinquished by: <u>JAD</u>		Company: <u>JAD</u> Date/Time: _____		Received in Laboratory by: <u>JAD</u> Company: <u>JAD</u> Date/Time: <u>8/8/17 1740</u>																																																																									

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-189818-1

Login Number: 189818

List Source: TestAmerica Irvine

List Number: 1

Creator: Garcia, Veronica G

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
Sample custody seals, if present, are intact.	N/A	Not Present	3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	False		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

[TestAmerica Job ID: 440-189911-1](#)

Client Project/Site: Omega Chemical -GW/Semi Annual

For:

de maximis, inc.

2365 Northside Drive, Suite C-100

San Diego, California 92108

Attn: Jaime Dinello

Authorized for release by:

8/18/2017 4:44:22 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

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The
Expert

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-189911-1	OC_GW_OW-10_20170809	Water	08/09/17 13:35	08/09/17 16:52
440-189911-2	OC_GW_OW-1B_20170809	Water	08/09/17 11:50	08/09/17 16:52
440-189911-3	OC_GW_OW-1BK_20170809	Water	08/09/17 11:55	08/09/17 16:52
440-189911-4	OC_GW_OW-1BN_20170809	Water	08/09/17 14:25	08/09/17 16:52
440-189911-5	OC_GW_TB_20170809	Water	08/09/17 07:00	08/09/17 16:52

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TestAmerica Irvine

Case Narrative

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Job ID: 440-189911-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-189911-1

Comments

No additional comments.

Receipt

The samples were received on 8/9/2017 4:52 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-422404 and analytical batch 440-422756. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-10_20170809

Lab Sample ID: 440-189911-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	20		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	37		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	2.7		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	4.6		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	7.1		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.12 J		0.51	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_OW-1B_20170809

Lab Sample ID: 440-189911-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	6.1		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	0.30 J		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 J		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.16 J		0.51	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_OW-1BK_20170809

Lab Sample ID: 440-189911-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	6.4		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	0.36 J		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 J		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.18 J		0.51	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_OW-1BN_20170809

Lab Sample ID: 440-189911-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10		10	10	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_TB_20170809

Lab Sample ID: 440-189911-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-10_20170809

Lab Sample ID: 440-189911-1

Matrix: Water

Date Collected: 08/09/17 13:35

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 01:30	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 01:30	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 01:30	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 01:30	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 01:30	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 01:30	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 01:30	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 01:30	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,1-Dichloroethene	20		1.0	0.25	ug/L			08/11/17 01:30	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 01:30	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 01:30	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 01:30	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 01:30	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 01:30	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 01:30	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 01:30	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Tetrachloroethene	37		1.0	0.25	ug/L			08/11/17 01:30	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-10_20170809

Lab Sample ID: 440-189911-1

Matrix: Water

Date Collected: 08/09/17 13:35

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 01:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:30	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Trichloroethene	2.7		1.0	0.25	ug/L			08/11/17 01:30	1
Trichlorofluoromethane	4.6		1.0	0.25	ug/L			08/11/17 01:30	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 01:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	7.1		5.0	0.50	ug/L			08/11/17 01:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:30	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 01:30	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	3.0	T J	ug/L		12.23			08/11/17 01:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		80 - 120					08/11/17 01:30	1
Dibromofluoromethane (Surr)	103		76 - 132					08/11/17 01:30	1
Toluene-d8 (Surr)	107		80 - 128					08/11/17 01:30	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					08/11/17 01:30	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.12	J	0.51	0.10	ug/L		08/10/17 08:12	08/11/17 19:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	56		36 - 90				08/10/17 08:12	08/11/17 19:07	1

Client Sample ID: OC_GW_OW-1B_20170809

Lab Sample ID: 440-189911-2

Matrix: Water

Date Collected: 08/09/17 11:50

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 01:58	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 01:58	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 01:58	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 01:58	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 01:58	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 01:58	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-1B_20170809

Lab Sample ID: 440-189911-2

Matrix: Water

Date Collected: 08/09/17 11:50

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 01:58	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 01:58	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 01:58	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 01:58	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 01:58	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 01:58	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 01:58	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 01:58	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 01:58	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 01:58	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Tetrachloroethene	6.1		1.0	0.25	ug/L			08/11/17 01:58	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 01:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 01:58	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Trichloroethene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
Trichlorofluoromethane	0.30 J		1.0	0.25	ug/L			08/11/17 01:58	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 01:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 J		5.0	0.50	ug/L			08/11/17 01:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 01:58	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-1B_20170809

Lab Sample ID: 440-189911-2

Matrix: Water

Date Collected: 08/09/17 11:50

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 01:58	1
Tentatively Identified Compound	Est. Result	Qualifier			Unit	D	RT	CAS No.	
<i>Tentatively Identified Compound</i>	None				ug/L				08/11/17 01:58
Surrogate	%Recovery	Qualifier			Limits			Prepared	Analyzed
4-Bromofluorobenzene (Surr)	105				80 - 120				08/11/17 01:58
Dibromofluoromethane (Surr)	104				76 - 132				08/11/17 01:58
Toluene-d8 (Surr)	106				80 - 128				08/11/17 01:58
1,2-Dichloroethane-d4 (Surr)	110				70 - 130				08/11/17 01:58

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.16	J	0.51	0.10	ug/L			08/10/17 08:12	08/11/17 19:29
Surrogate	%Recovery	Qualifier			Limits			Prepared	Analyzed
1,4-Dioxane-d8 (Surr)	61				36 - 90			08/10/17 08:12	08/11/17 19:29

Client Sample ID: OC_GW_OW-1BK_20170809

Lab Sample ID: 440-189911-3

Matrix: Water

Date Collected: 08/09/17 11:55

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 02:26	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 02:26	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 02:26	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 02:26	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 02:26	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 02:26	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 02:26	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:26	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-1BK_20170809

Lab Sample ID: 440-189911-3

Matrix: Water

Date Collected: 08/09/17 11:55

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:26	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 02:26	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 02:26	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 02:26	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 02:26	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 02:26	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 02:26	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Tetrachloroethene	6.4		1.0	0.25	ug/L			08/11/17 02:26	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:26	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Trichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Trichlorofluoromethane	0.36 J		1.0	0.25	ug/L			08/11/17 02:26	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 J		5.0	0.50	ug/L			08/11/17 02:26	1
ne									
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:26	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 02:26	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 02:26	1
Surrogate									
4-Bromofluorobenzene (Surr)	105		Limits				Prepared	Analyzed	Dil Fac
			80 - 120					08/11/17 02:26	1
Dibromofluoromethane (Surr)	105			76 - 132				08/11/17 02:26	1
Toluene-d8 (Surr)	109			80 - 128				08/11/17 02:26	1
1,2-Dichloroethane-d4 (Surr)	110			70 - 130				08/11/17 02:26	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.18 J		0.51	0.10	ug/L		08/10/17 08:12	08/11/17 19:51	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-1BK_20170809

Lab Sample ID: 440-189911-3

Matrix: Water

Date Collected: 08/09/17 11:55

Date Received: 08/09/17 16:52

Surrogate

%Recovery

1,4-Dioxane-d8 (Surr)

59

Qualifier

36 - 90

Limits

Prepared

08/10/17 08:12

Analyzed

08/11/17 19:51

Dil Fac

1

Client Sample ID: OC_GW_OW-1BN_20170809

Lab Sample ID: 440-189911-4

Matrix: Water

Date Collected: 08/09/17 14:25

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10		10	10	ug/L			08/11/17 02:54	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 02:54	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 02:54	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 02:54	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 02:54	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:54	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 02:54	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 02:54	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:54	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 02:54	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 02:54	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 02:54	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 02:54	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 02:54	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 02:54	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 02:54	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-1BN_20170809

Lab Sample ID: 440-189911-4

Matrix: Water

Date Collected: 08/09/17 14:25

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Tetrachloroethylene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 02:54	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 02:54	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Trichloroethylene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 02:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/11/17 02:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 02:54	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 02:54	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
1-Propene, 2-methyl-	5.0	T J N	ug/L		2.18	115-11-7		08/11/17 02:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120					08/11/17 02:54	1
Dibromofluoromethane (Surr)	103		76 - 132					08/11/17 02:54	1
Toluene-d8 (Surr)	108		80 - 128					08/11/17 02:54	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130					08/11/17 02:54	1

Client Sample ID: OC_GW_TB_20170809

Lab Sample ID: 440-189911-5

Matrix: Water

Date Collected: 08/09/17 07:00

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 03:22	1
Benzene	ND		0.50	0.25	ug/L			08/11/17 03:22	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 03:22	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 03:22	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 03:22	1
Chloroform	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 03:22	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_TB_20170809

Lab Sample ID: 440-189911-5

Matrix: Water

Date Collected: 08/09/17 07:00

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 03:22	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 03:22	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 03:22	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 03:22	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 03:22	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 03:22	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 03:22	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 03:22	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 03:22	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 03:22	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 03:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 03:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 03:22	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Trichloroethene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 03:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/11/17 03:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:22	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_TB_20170809

Lab Sample ID: 440-189911-5

Matrix: Water

Date Collected: 08/09/17 07:00

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 03:22	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 03:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		80 - 120					08/11/17 03:22	1
Dibromofluoromethane (Surr)	103		76 - 132					08/11/17 03:22	1
Toluene-d8 (Surr)	110		80 - 128					08/11/17 03:22	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					08/11/17 03:22	1

Surrogate Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-189818-A-1 MS	Matrix Spike	103	104	104	106
440-189818-A-1 MSD	Matrix Spike Duplicate	101	103	103	103
440-189911-1	OC_GW_OW-10_20170809	105	103	107	110
440-189911-2	OC_GW_OW-1B_20170809	105	104	106	110
440-189911-3	OC_GW_OW-1BK_20170809	105	105	109	110
440-189911-4	OC_GW_OW-1BN_20170809	106	103	108	109
440-189911-5	OC_GW_TB_20170809	105	103	110	108
LCS 440-422566/5	Lab Control Sample	103	100	105	101
LCS 440-422566/6	Lab Control Sample	104	102	106	104
MB 440-422566/4	Method Blank	104	102	109	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		14DD8 (36-90)			
440-189911-1	OC_GW_OW-10_20170809	56			
440-189911-2	OC_GW_OW-1B_20170809	61			
440-189911-3	OC_GW_OW-1BK_20170809	59			
LCS 440-422404/2-A	Lab Control Sample	59			
LCSD 440-422404/3-A	Lab Control Sample Dup	60			
MB 440-422404/1-A	Method Blank	56			

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

TestAmerica Irvine

Method Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Client Sample ID: OC_GW_OW-10_20170809

Lab Sample ID: 440-189911-1

Matrix: Water

Date Collected: 08/09/17 13:35

Date Received: 08/09/17 16:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/11/17 01:30	JB	TAL IRV
Total/NA	Prep	3520C			985 mL	1.0 mL	422404	08/10/17 08:12	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422756	08/11/17 19:07	HN	TAL IRV

Client Sample ID: OC_GW_OW-1B_20170809

Lab Sample ID: 440-189911-2

Matrix: Water

Date Collected: 08/09/17 11:50

Date Received: 08/09/17 16:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/11/17 01:58	JB	TAL IRV
Total/NA	Prep	3520C			985 mL	1.0 mL	422404	08/10/17 08:12	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422756	08/11/17 19:29	HN	TAL IRV

Client Sample ID: OC_GW_OW-1BK_20170809

Lab Sample ID: 440-189911-3

Matrix: Water

Date Collected: 08/09/17 11:55

Date Received: 08/09/17 16:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/11/17 02:26	JB	TAL IRV
Total/NA	Prep	3520C			985 mL	1.0 mL	422404	08/10/17 08:12	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422756	08/11/17 19:51	HN	TAL IRV

Client Sample ID: OC_GW_OW-1BN_20170809

Lab Sample ID: 440-189911-4

Matrix: Water

Date Collected: 08/09/17 14:25

Date Received: 08/09/17 16:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/11/17 02:54	JB	TAL IRV

Client Sample ID: OC_GW_TB_20170809

Lab Sample ID: 440-189911-5

Matrix: Water

Date Collected: 08/09/17 07:00

Date Received: 08/09/17 16:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/11/17 03:22	JB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-422566/4

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/10/17 19:00	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 19:00	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 19:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 19:00	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 19:00	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 19:00	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 19:00	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 19:00	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 19:00	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-422566/4

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Tetrachloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Toluene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
trans-1,2-Dichloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
trans-1,3-Dichloropropene	ND				0.50	0.25	ug/L			08/10/17 19:00	1
1,2,3-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,2,4-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,1,1-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,1,2-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Trichloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Trichlorofluoromethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,2,3-Trichloropropane	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				5.0	0.50	ug/L			08/10/17 19:00	1
1,2,4-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,3,5-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Vinyl chloride	ND				0.50	0.25	ug/L			08/10/17 19:00	1

Tentatively Identified Compound	MB	MB	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Tentatively Identified Compound	None				ug/L					08/10/17 19:00	1
Surrogate											
Surrogate											
4-Bromofluorobenzene (Surr)	104				80 - 120				Prepared	08/10/17 19:00	1
Dibromofluoromethane (Surr)	102				76 - 132					08/10/17 19:00	1
Toluene-d8 (Surr)	109				80 - 128					08/10/17 19:00	1
1,2-Dichloroethane-d4 (Surr)	103				70 - 130					08/10/17 19:00	1

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
	Result	Qualifier								
Acetone			25.0	24.1		ug/L		96	10 - 150	
Benzene			25.0	25.0		ug/L		100	68 - 130	
Bromobenzene			25.0	25.1		ug/L		100	70 - 130	
Bromochloromethane			25.0	24.8		ug/L		99	70 - 130	
Bromodichloromethane			25.0	26.4		ug/L		106	70 - 132	
Bromoform			25.0	25.7		ug/L		103	60 - 148	
Bromomethane			25.0	24.5		ug/L		98	64 - 139	
Carbon tetrachloride			25.0	25.3		ug/L		101	60 - 150	
Chlorobenzene			25.0	25.4		ug/L		102	70 - 130	
Chloroethane			25.0	23.2		ug/L		93	64 - 135	
Chloroform			25.0	25.3		ug/L		101	70 - 130	
Chloromethane			25.0	24.1		ug/L		96	47 - 140	
2-Chlorotoluene			25.0	24.8		ug/L		99	70 - 130	
4-Chlorotoluene			25.0	25.4		ug/L		102	70 - 130	
cis-1,2-Dichloroethene			25.0	25.4		ug/L		102	70 - 133	
cis-1,3-Dichloropropene			25.0	27.6		ug/L		110	70 - 133	
Dibromochloromethane			25.0	27.0		ug/L		108	69 - 145	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	52 - 140	
1,2-Dibromoethane (EDB)	25.0	25.6		ug/L		102	70 - 130	
Dibromomethane	25.0	25.0		ug/L		100	70 - 130	
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
Dichlorodifluoromethane	25.0	20.8		ug/L		83	29 - 150	
1,1-Dichloroethane	25.0	25.6		ug/L		102	64 - 130	
1,2-Dichloroethane	25.0	26.4		ug/L		105	57 - 138	
1,1-Dichloroethene	25.0	23.3		ug/L		93	70 - 130	
1,2-Dichloropropane	25.0	25.4		ug/L		102	67 - 130	
1,3-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	
2,2-Dichloropropane	25.0	25.6		ug/L		102	68 - 141	
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	
Ethylbenzene	25.0	25.5		ug/L		102	70 - 130	
Hexachlorobutadiene	25.0	25.0		ug/L		100	10 - 150	
Isopropylbenzene	25.0	25.3		ug/L		101	70 - 136	
Methylene Chloride	25.0	23.3		ug/L		93	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	25.2		ug/L		101	63 - 131	
m,p-Xylene	25.0	25.5		ug/L		102	70 - 130	
Naphthalene	25.0	24.4		ug/L		98	60 - 140	
n-Butylbenzene	25.0	25.7		ug/L		103	65 - 150	
N-Propylbenzene	25.0	25.3		ug/L		101	67 - 139	
o-Xylene	25.0	25.4		ug/L		102	70 - 130	
p-Isopropyltoluene	25.0	24.8		ug/L		99	70 - 132	
sec-Butylbenzene	25.0	25.3		ug/L		101	70 - 138	
Styrene	25.0	25.9		ug/L		103	70 - 134	
tert-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		108	60 - 141	
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130	
Tetrachloroethene	25.0	25.2		ug/L		101	70 - 130	
Toluene	25.0	25.1		ug/L		101	70 - 130	
trans-1,2-Dichloroethene	25.0	25.4		ug/L		101	70 - 130	
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 132	
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140	
1,2,4-Trichlorobenzene	25.0	25.7		ug/L		103	60 - 140	
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	
1,1,2-Trichloroethane	25.0	26.5		ug/L		106	70 - 130	
Trichloroethene	25.0	25.7		ug/L		103	70 - 130	
Trichlorofluoromethane	25.0	23.6		ug/L		94	60 - 150	
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	63 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.8		ug/L		95	60 - 140	
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 135	
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 136	
Vinyl chloride	25.0	26.2		ug/L		105	59 - 133	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	100		76 - 132
Toluene-d8 (Surr)	105		80 - 128
1,2-Dichloroethane-d4 (Surr)	101		70 - 130

Lab Sample ID: LCS 440-422566/6

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Isopropyl alcohol	250	244	J	ug/L	97	49 - 142	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	106		80 - 128
1,2-Dichloroethane-d4 (Surr)	104		70 - 130

Lab Sample ID: 440-189818-A-1 MS

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Acetone	ND		25.0	36.7		ug/L	147	10 - 150	
Benzene	ND		25.0	25.2		ug/L	101	66 - 130	
Bromobenzene	ND		25.0	25.1		ug/L	100	70 - 130	
Bromochloromethane	ND		25.0	25.7		ug/L	103	70 - 130	
Bromodichloromethane	ND		25.0	27.6		ug/L	110	70 - 138	
Bromoform	ND		25.0	27.6		ug/L	110	59 - 150	
Bromomethane	ND		25.0	23.8		ug/L	95	62 - 131	
Carbon tetrachloride	ND		25.0	25.4		ug/L	102	60 - 150	
Chlorobenzene	ND		25.0	25.6		ug/L	102	70 - 130	
Chloroethane	ND		25.0	23.1		ug/L	92	68 - 130	
Chloroform	ND		25.0	25.7		ug/L	103	70 - 130	
Chloromethane	ND		25.0	24.7		ug/L	99	39 - 144	
2-Chlorotoluene	ND		25.0	24.6		ug/L	99	70 - 130	
4-Chlorotoluene	ND		25.0	25.2		ug/L	101	70 - 130	
cis-1,2-Dichloroethene	ND		25.0	26.0		ug/L	104	70 - 130	
cis-1,3-Dichloropropene	ND		25.0	27.9		ug/L	112	70 - 133	
Dibromochloromethane	ND		25.0	28.5		ug/L	114	70 - 148	
1,2-Dibromo-3-Chloropropane	ND		25.0	27.9		ug/L	112	48 - 140	
1,2-Dibromoethane (EDB)	ND		25.0	27.5		ug/L	110	70 - 131	
Dibromomethane	ND		25.0	26.4		ug/L	106	70 - 130	
1,2-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	
1,3-Dichlorobenzene	ND		25.0	25.3		ug/L	101	70 - 130	
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L	103	70 - 130	
Dichlorodifluoromethane	ND		25.0	20.2		ug/L	81	25 - 142	
1,1-Dichloroethane	ND		25.0	25.5		ug/L	102	65 - 130	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-A-1 MS

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits	
	Result	Qualifier	Added	Result	Qualifier						
1,2-Dichloroethane	ND		25.0	27.6		ug/L		110	56 - 146		
1,1-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130		
1,2-Dichloropropane	ND		25.0	26.2		ug/L		105	69 - 130		
1,3-Dichloropropane	ND		25.0	27.5		ug/L		110	70 - 130		
2,2-Dichloropropane	ND		25.0	25.9		ug/L		104	69 - 138		
1,1-Dichloropropene	ND		25.0	26.0		ug/L		104	64 - 130		
Ethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130		
Hexachlorobutadiene	ND		25.0	25.5		ug/L		102	10 - 150		
Isopropyl alcohol	ND		250	299		ug/L		120	46 - 142		
Isopropylbenzene	ND		25.0	25.2		ug/L		101	70 - 132		
Methylene Chloride	ND		25.0	24.0		ug/L		96	52 - 130		
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.8		ug/L		111	70 - 130		
m,p-Xylene	ND		25.0	25.4		ug/L		102	70 - 133		
Naphthalene	ND		25.0	25.9		ug/L		104	60 - 140		
n-Butylbenzene	ND		25.0	25.9		ug/L		104	61 - 149		
N-Propylbenzene	ND		25.0	24.9		ug/L		99	66 - 135		
o-Xylene	ND		25.0	25.5		ug/L		102	70 - 133		
p-Isopropyltoluene	ND		25.0	24.9		ug/L		100	70 - 130		
sec-Butylbenzene	ND		25.0	25.3		ug/L		101	67 - 134		
Styrene	ND		25.0	24.6		ug/L		98	29 - 150		
tert-Butylbenzene	ND		25.0	24.8		ug/L		99	70 - 130		
1,1,1,2-Tetrachloroethane	ND		25.0	27.1		ug/L		108	60 - 149		
1,1,2,2-Tetrachloroethane	ND		25.0	26.7		ug/L		107	63 - 130		
Tetrachloroethene	7.7		25.0	33.4		ug/L		103	70 - 137		
Toluene	ND		25.0	25.3		ug/L		101	70 - 130		
trans-1,2-Dichloroethene	ND		25.0	25.4		ug/L		102	70 - 130		
trans-1,3-Dichloropropene	ND		25.0	28.1		ug/L		113	70 - 138		
1,2,3-Trichlorobenzene	ND		25.0	27.2		ug/L		109	60 - 140		
1,2,4-Trichlorobenzene	ND		25.0	26.8		ug/L		107	60 - 140		
1,1,1-Trichloroethane	ND		25.0	25.3		ug/L		101	70 - 130		
1,1,2-Trichloroethane	ND		25.0	28.1		ug/L		112	70 - 130		
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130		
Trichlorofluoromethane	ND		25.0	23.9		ug/L		96	60 - 150		
1,2,3-Trichloropropane	ND		25.0	26.6		ug/L		107	60 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.0		ug/L		96	60 - 140		
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130		
1,3,5-Trimethylbenzene	ND		25.0	24.5		ug/L		98	70 - 130		
Vinyl chloride	ND		25.0	22.6		ug/L		90	50 - 137		

MS **MS**

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	104		76 - 132
Toluene-d8 (Surr)	104		80 - 128
1,2-Dichloroethane-d4 (Surr)	106		70 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-A-1 MSD

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Acetone	ND		25.0	33.5		ug/L	134	10 - 150	9	35	
Benzene	ND		25.0	25.8		ug/L	103	66 - 130	3	20	
Bromobenzene	ND		25.0	25.7		ug/L	103	70 - 130	2	20	
Bromochloromethane	ND		25.0	25.8		ug/L	103	70 - 130	0	25	
Bromodichloromethane	ND		25.0	27.4		ug/L	110	70 - 138	1	20	
Bromoform	ND		25.0	26.4		ug/L	106	59 - 150	4	25	
Bromomethane	ND		25.0	24.5		ug/L	98	62 - 131	3	25	
Carbon tetrachloride	ND		25.0	26.3		ug/L	105	60 - 150	4	25	
Chlorobenzene	ND		25.0	25.9		ug/L	104	70 - 130	1	20	
Chloroethane	ND		25.0	23.6		ug/L	95	68 - 130	2	25	
Chloroform	ND		25.0	26.3		ug/L	105	70 - 130	2	20	
Chloromethane	ND		25.0	24.8		ug/L	99	39 - 144	1	25	
2-Chlorotoluene	ND		25.0	25.2		ug/L	101	70 - 130	2	20	
4-Chlorotoluene	ND		25.0	25.7		ug/L	103	70 - 130	2	20	
cis-1,2-Dichloroethene	ND		25.0	26.7		ug/L	107	70 - 130	3	20	
cis-1,3-Dichloropropene	ND		25.0	27.7		ug/L	111	70 - 133	1	20	
Dibromochloromethane	ND		25.0	28.2		ug/L	113	70 - 148	1	25	
1,2-Dibromo-3-Chloropropane	ND		25.0	25.5		ug/L	102	48 - 140	9	30	
1,2-Dibromoethane (EDB)	ND		25.0	26.5		ug/L	106	70 - 131	4	25	
Dibromomethane	ND		25.0	25.8		ug/L	103	70 - 130	2	25	
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L	105	70 - 130	0	20	
1,3-Dichlorobenzene	ND		25.0	25.8		ug/L	103	70 - 130	2	20	
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	2	20	
Dichlorodifluoromethane	ND		25.0	20.5		ug/L	82	25 - 142	1	30	
1,1-Dichloroethane	ND		25.0	26.2		ug/L	105	65 - 130	3	20	
1,2-Dichloroethane	ND		25.0	27.1		ug/L	108	56 - 146	2	20	
1,1-Dichloroethene	ND		25.0	25.8		ug/L	103	70 - 130	2	20	
1,2-Dichloropropane	ND		25.0	26.3		ug/L	105	69 - 130	1	20	
1,3-Dichloropropane	ND		25.0	26.7		ug/L	107	70 - 130	3	25	
2,2-Dichloropropane	ND		25.0	26.8		ug/L	107	69 - 138	3	25	
1,1-Dichloropropene	ND		25.0	27.0		ug/L	108	64 - 130	4	20	
Ethylbenzene	ND		25.0	25.9		ug/L	103	70 - 130	2	20	
Hexachlorobutadiene	ND		25.0	26.1		ug/L	104	10 - 150	2	20	
Isopropyl alcohol	ND		250	312		ug/L	125	46 - 142	4	40	
Isopropylbenzene	ND		25.0	25.9		ug/L	104	70 - 132	3	20	
Methylene Chloride	ND		25.0	24.1		ug/L	96	52 - 130	1	20	
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.5		ug/L	110	70 - 130	1	25	
m,p-Xylene	ND		25.0	25.8		ug/L	103	70 - 133	1	25	
Naphthalene	ND		25.0	24.5		ug/L	98	60 - 140	6	30	
n-Butylbenzene	ND		25.0	26.6		ug/L	106	61 - 149	3	20	
N-Propylbenzene	ND		25.0	26.0		ug/L	104	66 - 135	4	20	
o-Xylene	ND		25.0	25.9		ug/L	103	70 - 133	1	20	
p-Isopropyltoluene	ND		25.0	25.6		ug/L	103	70 - 130	3	20	
sec-Butylbenzene	ND		25.0	25.9		ug/L	104	67 - 134	2	20	
Styrene	ND		25.0	23.5		ug/L	94	29 - 150	5	35	
tert-Butylbenzene	ND		25.0	25.8		ug/L	103	70 - 130	4	20	
1,1,1,2-Tetrachloroethane	ND		25.0	27.2		ug/L	109	60 - 149	1	20	
1,1,2,2-Tetrachloroethane	ND		25.0	25.6		ug/L	102	63 - 130	4	30	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-A-1 MSD

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Tetrachloroethene	7.7		25.0	33.5		ug/L		103	70 - 137	0	20
Toluene	ND		25.0	25.8		ug/L		103	70 - 130	2	20
trans-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	27.8		ug/L		111	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.1		ug/L		109	60 - 140	0	20
1,2,4-Trichlorobenzene	ND		25.0	26.7		ug/L		107	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	26.3		ug/L		105	70 - 130	4	20
1,1,2-Trichloroethane	ND		25.0	27.1		ug/L		108	70 - 130	4	25
Trichloroethene	ND		25.0	26.0		ug/L		104	70 - 130	4	20
Trichlorofluoromethane	ND		25.0	24.8		ug/L		99	60 - 150	3	25
1,2,3-Trichloropropane	ND		25.0	25.4		ug/L		101	60 - 130	5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.9		ug/L		100	60 - 140	4	20
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.2		ug/L		97	70 - 130	1	25
1,3,5-Trimethylbenzene	ND		25.0	25.3		ug/L		101	70 - 130	3	20
Vinyl chloride	ND		25.0	23.3		ug/L		93	50 - 137	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	103		76 - 132
Toluene-d8 (Surr)	103		80 - 128
1,2-Dichloroethane-d4 (Surr)	103		70 - 130

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-422404/1-A

Matrix: Water

Analysis Batch: 422756

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422404

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/10/17 08:12	08/11/17 13:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	56		36 - 90				08/10/17 08:12	08/11/17 13:37	1

Lab Sample ID: LCS 440-422404/2-A

Matrix: Water

Analysis Batch: 422756

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 422404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	2.00	1.18		ug/L		59	36 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8 (Surr)	59		36 - 90				

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 440-422404/3-A

Matrix: Water

Analysis Batch: 422756

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 422404

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
1,4-Dioxane	2.00	1.18		ug/L		59	36 - 120	0 35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits					
1,4-Dioxane-d8 (Surr)	60		36 - 90					

QC Association Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

GC/MS VOA

Analysis Batch: 422566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189911-1	OC_GW_OW-10_20170809	Total/NA	Water	8260B	
440-189911-2	OC_GW_OW-1B_20170809	Total/NA	Water	8260B	
440-189911-3	OC_GW_OW-1BK_20170809	Total/NA	Water	8260B	
440-189911-4	OC_GW_OW-1BN_20170809	Total/NA	Water	8260B	
440-189911-5	OC_GW_TB_20170809	Total/NA	Water	8260B	
MB 440-422566/4	Method Blank	Total/NA	Water	8260B	
LCS 440-422566/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-422566/6	Lab Control Sample	Total/NA	Water	8260B	
440-189818-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-189818-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 422404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189911-1	OC_GW_OW-10_20170809	Total/NA	Water	3520C	
440-189911-2	OC_GW_OW-1B_20170809	Total/NA	Water	3520C	
440-189911-3	OC_GW_OW-1BK_20170809	Total/NA	Water	3520C	
MB 440-422404/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-422404/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-422404/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 422756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189911-1	OC_GW_OW-10_20170809	Total/NA	Water	8270C SIM	422404
440-189911-2	OC_GW_OW-1B_20170809	Total/NA	Water	8270C SIM	422404
440-189911-3	OC_GW_OW-1BK_20170809	Total/NA	Water	8270C SIM	422404
MB 440-422404/1-A	Method Blank	Total/NA	Water	8270C SIM	422404
LCS 440-422404/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	422404
LCSD 440-422404/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	422404

Definitions/Glossary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.
N	Presumptive evidence of material.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Accreditation/Certification Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189911-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18 *
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

TestAmerica Irvine

17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

440-189911 Chain of Custody

Preservation Used: 1= Ice. 2= HCl; 3= H₂SO₄; 4= HNO₃; 5= NaOH; 6= Other

Possible Hazard Identification:

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 4.7 Corr'd: 4.6 Therm ID No.: H2-S66		
Relinquished by:		Company: JHA	Date/Time: 8/9/17 1520	Received by:	Company: TA Date/Time: 8-9-17 1520
Relinquished by:		Company: VT	Date/Time: 8-9-17 1652	Received by:	Company: Date/Time:
Relinquished by:		Company:	Date/Time:	Received in Laboratory by:	Company: TA Date/Time: 8-9-17 1652

LB 8/9/17

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-189911-1

Login Number: 189911

List Source: TestAmerica Irvine

List Number: 1

Creator: Garcia, Veronica G

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
Sample custody seals, if present, are intact.	N/A	Not Present	3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	False		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-189912-1

Client Project/Site: Omega Chemical -GW/Semi Annual
Revision: 1

For:

de maximis, inc.

2365 Northside Drive, Suite C-100

San Diego, California 92108

Attn: Jaime Dinello

Authorized for release by:

9/6/2017 9:17:52 AM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

LINKS

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results through

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The
Expert

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-189912-1	OC_GW_PZ-9_20170809	Water	08/09/17 13:47	08/09/17 16:52

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TestAmerica Irvine

Case Narrative

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Job ID: 440-189912-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-189912-1

Comments

No additional comments.

Receipt

The sample was received on 8/9/2017 4:52 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-422404 and analytical batch 440-422756. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method(s) 3520C: The following sample was diluted due to the nature of the sample matrix: OC_GW_PZ9_20170809 (440-189912-1). 5x dilution per historical. Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Client Sample ID: OC_GW_PZ-9_20170809

Lab Sample ID: 440-189912-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	0.50	0.25	ug/L	1		8260B	Total/NA
Chloroform	130		1.0	0.25	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.93	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	0.32	J	1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	3.7		1.0	0.25	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	24		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	200		1.0	0.25	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	2.6		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	1.4		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	120		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	160		1.0	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene - DL	1400		10	2.5	ug/L	10		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane - DL	650		50	5.0	ug/L	10		8260B	Total/NA
1,4-Dioxane	110		2.5	0.50	ug/L	1		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Client Sample ID: OC_GW_PZ-9_20170809

Lab Sample ID: 440-189912-1

Date Collected: 08/09/17 13:47

Matrix: Water

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/11/17 03:50	1
Benzene	0.45	J	0.50	0.25	ug/L			08/11/17 03:50	1
Bromobenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Bromoform	ND		1.0	0.40	ug/L			08/11/17 03:50	1
Bromomethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/11/17 03:50	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Chloroethane	ND		1.0	0.40	ug/L			08/11/17 03:50	1
Chloroform	130		1.0	0.25	ug/L			08/11/17 03:50	1
Chloromethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
cis-1,2-Dichloroethene	0.93	J	1.0	0.25	ug/L			08/11/17 03:50	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 03:50	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/11/17 03:50	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Dibromomethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,2-Dichlorobenzene	0.32	J	1.0	0.25	ug/L			08/11/17 03:50	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/11/17 03:50	1
1,1-Dichloroethane	3.7		1.0	0.25	ug/L			08/11/17 03:50	1
1,2-Dichloroethane	24		1.0	0.25	ug/L			08/11/17 03:50	1
1,1-Dichloroethene	200		1.0	0.25	ug/L			08/11/17 03:50	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/11/17 03:50	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Isopropyl alcohol	ND		250	180	ug/L			08/11/17 03:50	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/11/17 03:50	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/11/17 03:50	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/11/17 03:50	1
Naphthalene	ND		1.0	0.40	ug/L			08/11/17 03:50	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/11/17 03:50	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
o-Xylene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Styrene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Toluene	ND		1.0	0.25	ug/L			08/11/17 03:50	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Client Sample ID: OC_GW_PZ-9_20170809

Lab Sample ID: 440-189912-1

Matrix: Water

Date Collected: 08/09/17 13:47

Date Received: 08/09/17 16:52

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	2.6		1.0	0.25	ug/L			08/11/17 03:50	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/11/17 03:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 03:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/11/17 03:50	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,1,2-Trichloroethane	1.4		1.0	0.25	ug/L			08/11/17 03:50	1
Trichloroethene	120		1.0	0.25	ug/L			08/11/17 03:50	1
Trichlorofluoromethane	160		1.0	0.25	ug/L			08/11/17 03:50	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/11/17 03:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/11/17 03:50	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/11/17 03:50	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/11/17 03:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120		08/11/17 03:50	1
Dibromofluoromethane (Surr)	102		76 - 132		08/11/17 03:50	1
Toluene-d8 (Surr)	110		80 - 128		08/11/17 03:50	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		08/11/17 03:50	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1400		10	2.5	ug/L			08/11/17 04:18	10
1,1,2-Trichloro-1,2,2-trifluoroethane	650		50	5.0	ug/L			08/11/17 04:18	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		80 - 120		08/11/17 04:18	10
Dibromofluoromethane (Surr)	105		76 - 132		08/11/17 04:18	10
Toluene-d8 (Surr)	109		80 - 128		08/11/17 04:18	10
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		08/11/17 04:18	10

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	110		2.5	0.50	ug/L		08/10/17 08:12	08/11/17 20:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	51		36 - 90	08/10/17 08:12	08/11/17 20:13	1

Surrogate Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-189818-A-1 MS	Matrix Spike	103	104	104	106
440-189818-A-1 MSD	Matrix Spike Duplicate	101	103	103	103
440-189912-1	OC_GW_PZ-9_20170809	106	102	110	106
440-189912-1 - DL	OC_GW_PZ-9_20170809	108	105	109	110
LCS 440-422566/5	Lab Control Sample	103	100	105	101
LCS 440-422566/6	Lab Control Sample	104	102	106	104
MB 440-422566/4	Method Blank	104	102	109	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		14DD8 (36-90)	
440-189912-1	OC_GW_PZ-9_20170809	51	
LCS 440-422404/2-A	Lab Control Sample	59	
LCSD 440-422404/3-A	Lab Control Sample Dup	60	
MB 440-422404/1-A	Method Blank	56	

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

TestAmerica Irvine

Method Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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TestAmerica Irvine

Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Client Sample ID: OC_GW_PZ-9_20170809

Lab Sample ID: 440-189912-1

Matrix: Water

Date Collected: 08/09/17 13:47

Date Received: 08/09/17 16:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	422566	08/11/17 03:50	JB	TAL IRV
Total/NA	Analysis	8260B	DL	10	10 mL	10 mL	422566	08/11/17 04:18	JB	TAL IRV
Total/NA	Prep	3520C			200 mL	1.0 mL	422404	08/10/17 08:12	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			422756	08/11/17 20:13	HN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-422566/4

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/10/17 19:00	1
Benzene	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Bromobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Bromoform	ND		1.0	0.40	ug/L			08/10/17 19:00	1
Bromomethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Chloroethane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
Chloroform	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Chloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/10/17 19:00	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/10/17 19:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Dibromomethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/10/17 19:00	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Isopropyl alcohol	ND		250	180	ug/L			08/10/17 19:00	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/10/17 19:00	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/10/17 19:00	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/10/17 19:00	1
Naphthalene	ND		1.0	0.40	ug/L			08/10/17 19:00	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/10/17 19:00	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
o-Xylene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
Styrene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/10/17 19:00	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-422566/4

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Tetrachloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Toluene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
trans-1,2-Dichloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
trans-1,3-Dichloropropene	ND				0.50	0.25	ug/L			08/10/17 19:00	1
1,2,3-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,2,4-Trichlorobenzene	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,1,1-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,1,2-Trichloroethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Trichloroethene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Trichlorofluoromethane	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,2,3-Trichloropropane	ND				1.0	0.40	ug/L			08/10/17 19:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND				5.0	0.50	ug/L			08/10/17 19:00	1
1,2,4-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
1,3,5-Trimethylbenzene	ND				1.0	0.25	ug/L			08/10/17 19:00	1
Vinyl chloride	ND				0.50	0.25	ug/L			08/10/17 19:00	1

Tentatively Identified Compound	MB	MB	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Tentatively Identified Compound	None				ug/L					08/10/17 19:00	1
Surrogate											
Surrogate											
4-Bromofluorobenzene (Surr)	104				80 - 120				Prepared	08/10/17 19:00	1
Dibromofluoromethane (Surr)	102				76 - 132					08/10/17 19:00	1
Toluene-d8 (Surr)	109				80 - 128					08/10/17 19:00	1
1,2-Dichloroethane-d4 (Surr)	103				70 - 130					08/10/17 19:00	1

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
	Result	Qualifier								
Acetone			25.0	24.1		ug/L		96	10 - 150	
Benzene			25.0	25.0		ug/L		100	68 - 130	
Bromobenzene			25.0	25.1		ug/L		100	70 - 130	
Bromochloromethane			25.0	24.8		ug/L		99	70 - 130	
Bromodichloromethane			25.0	26.4		ug/L		106	70 - 132	
Bromoform			25.0	25.7		ug/L		103	60 - 148	
Bromomethane			25.0	24.5		ug/L		98	64 - 139	
Carbon tetrachloride			25.0	25.3		ug/L		101	60 - 150	
Chlorobenzene			25.0	25.4		ug/L		102	70 - 130	
Chloroethane			25.0	23.2		ug/L		93	64 - 135	
Chloroform			25.0	25.3		ug/L		101	70 - 130	
Chloromethane			25.0	24.1		ug/L		96	47 - 140	
2-Chlorotoluene			25.0	24.8		ug/L		99	70 - 130	
4-Chlorotoluene			25.0	25.4		ug/L		102	70 - 130	
cis-1,2-Dichloroethene			25.0	25.4		ug/L		102	70 - 133	
cis-1,3-Dichloropropene			25.0	27.6		ug/L		110	70 - 133	
Dibromochloromethane			25.0	27.0		ug/L		108	69 - 145	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	52 - 140	
1,2-Dibromoethane (EDB)	25.0	25.6		ug/L		102	70 - 130	
Dibromomethane	25.0	25.0		ug/L		100	70 - 130	
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	
Dichlorodifluoromethane	25.0	20.8		ug/L		83	29 - 150	
1,1-Dichloroethane	25.0	25.6		ug/L		102	64 - 130	
1,2-Dichloroethane	25.0	26.4		ug/L		105	57 - 138	
1,1-Dichloroethene	25.0	23.3		ug/L		93	70 - 130	
1,2-Dichloropropane	25.0	25.4		ug/L		102	67 - 130	
1,3-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	
2,2-Dichloropropane	25.0	25.6		ug/L		102	68 - 141	
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	
Ethylbenzene	25.0	25.5		ug/L		102	70 - 130	
Hexachlorobutadiene	25.0	25.0		ug/L		100	10 - 150	
Isopropylbenzene	25.0	25.3		ug/L		101	70 - 136	
Methylene Chloride	25.0	23.3		ug/L		93	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	25.2		ug/L		101	63 - 131	
m,p-Xylene	25.0	25.5		ug/L		102	70 - 130	
Naphthalene	25.0	24.4		ug/L		98	60 - 140	
n-Butylbenzene	25.0	25.7		ug/L		103	65 - 150	
N-Propylbenzene	25.0	25.3		ug/L		101	67 - 139	
o-Xylene	25.0	25.4		ug/L		102	70 - 130	
p-Isopropyltoluene	25.0	24.8		ug/L		99	70 - 132	
sec-Butylbenzene	25.0	25.3		ug/L		101	70 - 138	
Styrene	25.0	25.9		ug/L		103	70 - 134	
tert-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		108	60 - 141	
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130	
Tetrachloroethene	25.0	25.2		ug/L		101	70 - 130	
Toluene	25.0	25.1		ug/L		101	70 - 130	
trans-1,2-Dichloroethene	25.0	25.4		ug/L		101	70 - 130	
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 132	
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140	
1,2,4-Trichlorobenzene	25.0	25.7		ug/L		103	60 - 140	
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	
1,1,2-Trichloroethane	25.0	26.5		ug/L		106	70 - 130	
Trichloroethene	25.0	25.7		ug/L		103	70 - 130	
Trichlorofluoromethane	25.0	23.6		ug/L		94	60 - 150	
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	63 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.8		ug/L		95	60 - 140	
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 135	
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 136	
Vinyl chloride	25.0	26.2		ug/L		105	59 - 133	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-422566/5

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	100		76 - 132
Toluene-d8 (Surr)	105		80 - 128
1,2-Dichloroethane-d4 (Surr)	101		70 - 130

Lab Sample ID: LCS 440-422566/6

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Isopropyl alcohol	250	244	J	ug/L	97	49 - 142	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	106		80 - 128
1,2-Dichloroethane-d4 (Surr)	104		70 - 130

Lab Sample ID: 440-189818-A-1 MS

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Acetone	ND		25.0	36.7		ug/L	147	10 - 150	
Benzene	ND		25.0	25.2		ug/L	101	66 - 130	
Bromobenzene	ND		25.0	25.1		ug/L	100	70 - 130	
Bromochloromethane	ND		25.0	25.7		ug/L	103	70 - 130	
Bromodichloromethane	ND		25.0	27.6		ug/L	110	70 - 138	
Bromoform	ND		25.0	27.6		ug/L	110	59 - 150	
Bromomethane	ND		25.0	23.8		ug/L	95	62 - 131	
Carbon tetrachloride	ND		25.0	25.4		ug/L	102	60 - 150	
Chlorobenzene	ND		25.0	25.6		ug/L	102	70 - 130	
Chloroethane	ND		25.0	23.1		ug/L	92	68 - 130	
Chloroform	ND		25.0	25.7		ug/L	103	70 - 130	
Chloromethane	ND		25.0	24.7		ug/L	99	39 - 144	
2-Chlorotoluene	ND		25.0	24.6		ug/L	99	70 - 130	
4-Chlorotoluene	ND		25.0	25.2		ug/L	101	70 - 130	
cis-1,2-Dichloroethene	ND		25.0	26.0		ug/L	104	70 - 130	
cis-1,3-Dichloropropene	ND		25.0	27.9		ug/L	112	70 - 133	
Dibromochloromethane	ND		25.0	28.5		ug/L	114	70 - 148	
1,2-Dibromo-3-Chloropropane	ND		25.0	27.9		ug/L	112	48 - 140	
1,2-Dibromoethane (EDB)	ND		25.0	27.5		ug/L	110	70 - 131	
Dibromomethane	ND		25.0	26.4		ug/L	106	70 - 130	
1,2-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	
1,3-Dichlorobenzene	ND		25.0	25.3		ug/L	101	70 - 130	
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L	103	70 - 130	
Dichlorodifluoromethane	ND		25.0	20.2		ug/L	81	25 - 142	
1,1-Dichloroethane	ND		25.0	25.5		ug/L	102	65 - 130	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-A-1 MS

Matrix: Water

Analysis Batch: 422566

**Client Sample ID: Matrix Spike
Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits	
	Result	Qualifier	Added	Result	Qualifier						
1,2-Dichloroethane	ND		25.0	27.6		ug/L		110	56 - 146		
1,1-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130		
1,2-Dichloropropane	ND		25.0	26.2		ug/L		105	69 - 130		
1,3-Dichloropropane	ND		25.0	27.5		ug/L		110	70 - 130		
2,2-Dichloropropane	ND		25.0	25.9		ug/L		104	69 - 138		
1,1-Dichloropropene	ND		25.0	26.0		ug/L		104	64 - 130		
Ethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130		
Hexachlorobutadiene	ND		25.0	25.5		ug/L		102	10 - 150		
Isopropyl alcohol	ND		250	299		ug/L		120	46 - 142		
Isopropylbenzene	ND		25.0	25.2		ug/L		101	70 - 132		
Methylene Chloride	ND		25.0	24.0		ug/L		96	52 - 130		
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.8		ug/L		111	70 - 130		
m,p-Xylene	ND		25.0	25.4		ug/L		102	70 - 133		
Naphthalene	ND		25.0	25.9		ug/L		104	60 - 140		
n-Butylbenzene	ND		25.0	25.9		ug/L		104	61 - 149		
N-Propylbenzene	ND		25.0	24.9		ug/L		99	66 - 135		
o-Xylene	ND		25.0	25.5		ug/L		102	70 - 133		
p-Isopropyltoluene	ND		25.0	24.9		ug/L		100	70 - 130		
sec-Butylbenzene	ND		25.0	25.3		ug/L		101	67 - 134		
Styrene	ND		25.0	24.6		ug/L		98	29 - 150		
tert-Butylbenzene	ND		25.0	24.8		ug/L		99	70 - 130		
1,1,1,2-Tetrachloroethane	ND		25.0	27.1		ug/L		108	60 - 149		
1,1,2,2-Tetrachloroethane	ND		25.0	26.7		ug/L		107	63 - 130		
Tetrachloroethene	7.7		25.0	33.4		ug/L		103	70 - 137		
Toluene	ND		25.0	25.3		ug/L		101	70 - 130		
trans-1,2-Dichloroethene	ND		25.0	25.4		ug/L		102	70 - 130		
trans-1,3-Dichloropropene	ND		25.0	28.1		ug/L		113	70 - 138		
1,2,3-Trichlorobenzene	ND		25.0	27.2		ug/L		109	60 - 140		
1,2,4-Trichlorobenzene	ND		25.0	26.8		ug/L		107	60 - 140		
1,1,1-Trichloroethane	ND		25.0	25.3		ug/L		101	70 - 130		
1,1,2-Trichloroethane	ND		25.0	28.1		ug/L		112	70 - 130		
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130		
Trichlorofluoromethane	ND		25.0	23.9		ug/L		96	60 - 150		
1,2,3-Trichloropropane	ND		25.0	26.6		ug/L		107	60 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.0		ug/L		96	60 - 140		
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130		
1,3,5-Trimethylbenzene	ND		25.0	24.5		ug/L		98	70 - 130		
Vinyl chloride	ND		25.0	22.6		ug/L		90	50 - 137		

MS **MS**

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	104		76 - 132
Toluene-d8 (Surr)	104		80 - 128
1,2-Dichloroethane-d4 (Surr)	106		70 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-A-1 MSD

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Acetone	ND		25.0	33.5		ug/L	134	10 - 150	9	35	
Benzene	ND		25.0	25.8		ug/L	103	66 - 130	3	20	
Bromobenzene	ND		25.0	25.7		ug/L	103	70 - 130	2	20	
Bromochloromethane	ND		25.0	25.8		ug/L	103	70 - 130	0	25	
Bromodichloromethane	ND		25.0	27.4		ug/L	110	70 - 138	1	20	
Bromoform	ND		25.0	26.4		ug/L	106	59 - 150	4	25	
Bromomethane	ND		25.0	24.5		ug/L	98	62 - 131	3	25	
Carbon tetrachloride	ND		25.0	26.3		ug/L	105	60 - 150	4	25	
Chlorobenzene	ND		25.0	25.9		ug/L	104	70 - 130	1	20	
Chloroethane	ND		25.0	23.6		ug/L	95	68 - 130	2	25	
Chloroform	ND		25.0	26.3		ug/L	105	70 - 130	2	20	
Chloromethane	ND		25.0	24.8		ug/L	99	39 - 144	1	25	
2-Chlorotoluene	ND		25.0	25.2		ug/L	101	70 - 130	2	20	
4-Chlorotoluene	ND		25.0	25.7		ug/L	103	70 - 130	2	20	
cis-1,2-Dichloroethene	ND		25.0	26.7		ug/L	107	70 - 130	3	20	
cis-1,3-Dichloropropene	ND		25.0	27.7		ug/L	111	70 - 133	1	20	
Dibromochloromethane	ND		25.0	28.2		ug/L	113	70 - 148	1	25	
1,2-Dibromo-3-Chloropropane	ND		25.0	25.5		ug/L	102	48 - 140	9	30	
1,2-Dibromoethane (EDB)	ND		25.0	26.5		ug/L	106	70 - 131	4	25	
Dibromomethane	ND		25.0	25.8		ug/L	103	70 - 130	2	25	
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L	105	70 - 130	0	20	
1,3-Dichlorobenzene	ND		25.0	25.8		ug/L	103	70 - 130	2	20	
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	2	20	
Dichlorodifluoromethane	ND		25.0	20.5		ug/L	82	25 - 142	1	30	
1,1-Dichloroethane	ND		25.0	26.2		ug/L	105	65 - 130	3	20	
1,2-Dichloroethane	ND		25.0	27.1		ug/L	108	56 - 146	2	20	
1,1-Dichloroethene	ND		25.0	25.8		ug/L	103	70 - 130	2	20	
1,2-Dichloropropane	ND		25.0	26.3		ug/L	105	69 - 130	1	20	
1,3-Dichloropropane	ND		25.0	26.7		ug/L	107	70 - 130	3	25	
2,2-Dichloropropane	ND		25.0	26.8		ug/L	107	69 - 138	3	25	
1,1-Dichloropropene	ND		25.0	27.0		ug/L	108	64 - 130	4	20	
Ethylbenzene	ND		25.0	25.9		ug/L	103	70 - 130	2	20	
Hexachlorobutadiene	ND		25.0	26.1		ug/L	104	10 - 150	2	20	
Isopropyl alcohol	ND		250	312		ug/L	125	46 - 142	4	40	
Isopropylbenzene	ND		25.0	25.9		ug/L	104	70 - 132	3	20	
Methylene Chloride	ND		25.0	24.1		ug/L	96	52 - 130	1	20	
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.5		ug/L	110	70 - 130	1	25	
m,p-Xylene	ND		25.0	25.8		ug/L	103	70 - 133	1	25	
Naphthalene	ND		25.0	24.5		ug/L	98	60 - 140	6	30	
n-Butylbenzene	ND		25.0	26.6		ug/L	106	61 - 149	3	20	
N-Propylbenzene	ND		25.0	26.0		ug/L	104	66 - 135	4	20	
o-Xylene	ND		25.0	25.9		ug/L	103	70 - 133	1	20	
p-Isopropyltoluene	ND		25.0	25.6		ug/L	103	70 - 130	3	20	
sec-Butylbenzene	ND		25.0	25.9		ug/L	104	67 - 134	2	20	
Styrene	ND		25.0	23.5		ug/L	94	29 - 150	5	35	
tert-Butylbenzene	ND		25.0	25.8		ug/L	103	70 - 130	4	20	
1,1,1,2-Tetrachloroethane	ND		25.0	27.2		ug/L	109	60 - 149	1	20	
1,1,2,2-Tetrachloroethane	ND		25.0	25.6		ug/L	102	63 - 130	4	30	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-189818-A-1 MSD

Matrix: Water

Analysis Batch: 422566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Tetrachloroethene	7.7		25.0	33.5		ug/L		103	70 - 137	0	20
Toluene	ND		25.0	25.8		ug/L		103	70 - 130	2	20
trans-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	27.8		ug/L		111	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.1		ug/L		109	60 - 140	0	20
1,2,4-Trichlorobenzene	ND		25.0	26.7		ug/L		107	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	26.3		ug/L		105	70 - 130	4	20
1,1,2-Trichloroethane	ND		25.0	27.1		ug/L		108	70 - 130	4	25
Trichloroethene	ND		25.0	26.0		ug/L		104	70 - 130	4	20
Trichlorofluoromethane	ND		25.0	24.8		ug/L		99	60 - 150	3	25
1,2,3-Trichloropropane	ND		25.0	25.4		ug/L		101	60 - 130	5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.9		ug/L		100	60 - 140	4	20
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.2		ug/L		97	70 - 130	1	25
1,3,5-Trimethylbenzene	ND		25.0	25.3		ug/L		101	70 - 130	3	20
Vinyl chloride	ND		25.0	23.3		ug/L		93	50 - 137	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	103		76 - 132
Toluene-d8 (Surr)	103		80 - 128
1,2-Dichloroethane-d4 (Surr)	103		70 - 130

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-422404/1-A

Matrix: Water

Analysis Batch: 422756

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422404

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/10/17 08:12	08/11/17 13:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	56		36 - 90				08/10/17 08:12	08/11/17 13:37	1

Lab Sample ID: LCS 440-422404/2-A

Matrix: Water

Analysis Batch: 422756

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 422404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	2.00	1.18		ug/L		59	36 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8 (Surr)	59		36 - 90				

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 440-422404/3-A

Matrix: Water

Analysis Batch: 422756

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 422404

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
1,4-Dioxane	2.00	1.18		ug/L		59	36 - 120	0
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits					
1,4-Dioxane-d8 (Surr)	60		36 - 90					

QC Association Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

GC/MS VOA

Analysis Batch: 422566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189912-1	OC_GW_PZ-9_20170809	Total/NA	Water	8260B	
440-189912-1 - DL	OC_GW_PZ-9_20170809	Total/NA	Water	8260B	
MB 440-422566/4	Method Blank	Total/NA	Water	8260B	
LCS 440-422566/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-422566/6	Lab Control Sample	Total/NA	Water	8260B	
440-189818-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-189818-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 422404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189912-1	OC_GW_PZ-9_20170809	Total/NA	Water	3520C	
MB 440-422404/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-422404/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-422404/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 422756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-189912-1	OC_GW_PZ-9_20170809	Total/NA	Water	8270C SIM	
MB 440-422404/1-A	Method Blank	Total/NA	Water	8270C SIM	
LCS 440-422404/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	
LCSD 440-422404/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	

Definitions/Glossary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-189912-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

8/9/17

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-189912-1

Login Number: 189912

List Source: TestAmerica Irvine

List Number: 1

Creator: Bonta, Lucia F

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
Sample custody seals, if present, are intact.	N/A	Not Present	3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-190083-1

Client Project/Site: Omega Chemical -GW/Semi Annual

For:

de maximis, inc.

2365 Northside Drive, Suite C-100

San Diego, California 92108

Attn: Jaime Dinello

Authorized for release by:

8/21/2017 10:08:58 AM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-190083-1	OC_GW_OW-9_20170810	Water	08/10/17 08:12	08/11/17 18:10
440-190083-2	OC_GW_OW-11_20170810	Water	08/10/17 12:00	08/11/17 18:10
440-190083-3	OC_GW_OW-12_20170811	Water	08/11/17 06:45	08/11/17 18:10
440-190083-4	OC_GW_OW-9K_20170810	Water	08/10/17 08:15	08/11/17 18:10
440-190083-5	OC_GW_OW-11N_20170810	Water	08/10/17 12:55	08/11/17 18:10
440-190083-6	OC_GW_TB_20170810	Water	08/10/17 07:00	08/11/17 18:10

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TestAmerica Irvine

Case Narrative

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Job ID: 440-190083-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-190083-1

Comments

No additional comments.

Receipt

The samples were received on 8/11/2017 6:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 440-423180 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C SIM: The following samples required a dilution due to the nature of the sample matrix: OC_GW_OW-9_20170810 (440-190083-1) and OC_GW_OW-9K_20170810 (440-190083-4). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-423108 and analytical batch 440-423423. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-9_20170810

Lab Sample ID: 440-190083-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	290		5.0	1.3	ug/L	5		8260B	Total/NA
cis-1,2-Dichloroethene	18		5.0	1.3	ug/L	5		8260B	Total/NA
1,1-Dichloroethane	9.1		5.0	1.3	ug/L	5		8260B	Total/NA
1,2-Dichloroethane	78		5.0	1.3	ug/L	5		8260B	Total/NA
1,1-Dichloroethene	190		5.0	1.3	ug/L	5		8260B	Total/NA
Methylene Chloride	6.1 J		25	4.4	ug/L	5		8260B	Total/NA
trans-1,2-Dichloroethene	3.5 J		5.0	1.3	ug/L	5		8260B	Total/NA
1,1,2-Trichloroethane	5.9		5.0	1.3	ug/L	5		8260B	Total/NA
Trichloroethene	150		5.0	1.3	ug/L	5		8260B	Total/NA
Trichlorofluoromethane	32		5.0	1.3	ug/L	5		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	52		25	2.5	ug/L	5		8260B	Total/NA
Tetrachloroethene - DL	2100		25	6.3	ug/L	25		8260B	Total/NA
1,4-Dioxane	860		50	10	ug/L	100		8270C SIM	Total/NA

Client Sample ID: OC_GW_OW-11_20170810

Lab Sample ID: 440-190083-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.48 J		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	31		1.0	0.25	ug/L	1		8260B	Total/NA
Methylene Chloride	0.97 J		5.0	0.88	ug/L	1		8260B	Total/NA
Tetrachloroethene	170		1.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	39		1.0	0.25	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	20		1.0	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	58		5.0	0.50	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.15 J		0.50	0.10	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_OW-12_20170811

Lab Sample ID: 440-190083-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	120		5.0	1.3	ug/L	5		8260B	Total/NA
1,2-Dichlorobenzene	3.6 J		5.0	1.3	ug/L	5		8260B	Total/NA
1,2-Dichloroethane	5.1		5.0	1.3	ug/L	5		8260B	Total/NA
1,1-Dichloroethene	84		5.0	1.3	ug/L	5		8260B	Total/NA
Methylene Chloride	7.6 J		25	4.4	ug/L	5		8260B	Total/NA
Toluene	9.0		5.0	1.3	ug/L	5		8260B	Total/NA
1,1,1-Trichloroethane	68		5.0	1.3	ug/L	5		8260B	Total/NA
Trichloroethene	210		5.0	1.3	ug/L	5		8260B	Total/NA
Trichlorofluoromethane	42		5.0	1.3	ug/L	5		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	1100		25	2.5	ug/L	5		8260B	Total/NA
Tetrachloroethene - DL	1700		25	6.3	ug/L	25		8260B	Total/NA
1,4-Dioxane	9.4		0.50	0.099	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_GW_OW-9K_20170810

Lab Sample ID: 440-190083-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	290		5.0	1.3	ug/L	5		8260B	Total/NA
cis-1,2-Dichloroethene	16		5.0	1.3	ug/L	5		8260B	Total/NA
1,1-Dichloroethane	9.0		5.0	1.3	ug/L	5		8260B	Total/NA
1,2-Dichloroethane	87		5.0	1.3	ug/L	5		8260B	Total/NA
1,1-Dichloroethene	180		5.0	1.3	ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Detection Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-9K_20170810 (Continued)

Lab Sample ID: 440-190083-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	6.3	J	25	4.4	ug/L	5		8260B	Total/NA
trans-1,2-Dichloroethene	3.1	J	5.0	1.3	ug/L	5		8260B	Total/NA
1,1,2-Trichloroethane	6.5		5.0	1.3	ug/L	5		8260B	Total/NA
Trichloroethene	150		5.0	1.3	ug/L	5		8260B	Total/NA
Trichlorofluoromethane	31		5.0	1.3	ug/L	5		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	62		25	2.5	ug/L	5		8260B	Total/NA
Tetrachloroethene - DL	2200		25	6.3	ug/L	25		8260B	Total/NA
1,4-Dioxane	790		50	9.9	ug/L	100		8270C SIM	Total/NA

Client Sample ID: OC_GW_OW-11N_20170810

Lab Sample ID: 440-190083-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	21		10	10	ug/L	1		8260B	Total/NA
Isopropyl alcohol	230	J	250	180	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_TB_20170810

Lab Sample ID: 440-190083-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.99	J	5.0	0.88	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-9_20170810

Lab Sample ID: 440-190083-1

Matrix: Water

Date Collected: 08/10/17 08:12

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50	50	ug/L			08/14/17 16:02	5
Benzene	ND		2.5	1.3	ug/L			08/14/17 16:02	5
Bromobenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Bromochloromethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Bromodichloromethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Bromoform	ND		5.0	2.0	ug/L			08/14/17 16:02	5
Bromomethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Carbon tetrachloride	ND		2.5	1.3	ug/L			08/14/17 16:02	5
Chlorobenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Chloroethane	ND		5.0	2.0	ug/L			08/14/17 16:02	5
Chloroform	290		5.0	1.3	ug/L			08/14/17 16:02	5
Chloromethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
2-Chlorotoluene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
4-Chlorotoluene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
cis-1,2-Dichloroethene	18		5.0	1.3	ug/L			08/14/17 16:02	5
cis-1,3-Dichloropropene	ND		2.5	1.3	ug/L			08/14/17 16:02	5
Dibromochloromethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,2-Dibromo-3-Chloropropane	ND		25	2.5	ug/L			08/14/17 16:02	5
1,2-Dibromoethane (EDB)	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Dibromomethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,2-Dichlorobenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,3-Dichlorobenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,4-Dichlorobenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Dichlorodifluoromethane	ND		5.0	2.0	ug/L			08/14/17 16:02	5
1,1-Dichloroethane	9.1		5.0	1.3	ug/L			08/14/17 16:02	5
1,2-Dichloroethane	78		5.0	1.3	ug/L			08/14/17 16:02	5
1,1-Dichloroethene	190		5.0	1.3	ug/L			08/14/17 16:02	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,3-Dichloropropane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
2,2-Dichloropropane	ND		5.0	2.0	ug/L			08/14/17 16:02	5
1,1-Dichloropropene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Ethylbenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Hexachlorobutadiene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Isopropyl alcohol	ND		1300	880	ug/L			08/14/17 16:02	5
Isopropylbenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Methylene Chloride	6.1 J		25	4.4	ug/L			08/14/17 16:02	5
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.3	ug/L			08/14/17 16:02	5
m,p-Xylene	ND		5.0	2.5	ug/L			08/14/17 16:02	5
Naphthalene	ND		5.0	2.0	ug/L			08/14/17 16:02	5
n-Butylbenzene	ND		5.0	2.0	ug/L			08/14/17 16:02	5
N-Propylbenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
o-Xylene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
p-Isopropyltoluene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
sec-Butylbenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Styrene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
tert-Butylbenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,1,1,2-Tetrachloroethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Toluene	ND		5.0	1.3	ug/L			08/14/17 16:02	5

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-9_20170810

Lab Sample ID: 440-190083-1

Matrix: Water

Date Collected: 08/10/17 08:12

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	3.5	J	5.0	1.3	ug/L			08/14/17 16:02	5
trans-1,3-Dichloropropene	ND		2.5	1.3	ug/L			08/14/17 16:02	5
1,2,3-Trichlorobenzene	ND		5.0	2.0	ug/L			08/14/17 16:02	5
1,2,4-Trichlorobenzene	ND		5.0	2.0	ug/L			08/14/17 16:02	5
1,1,1-Trichloroethane	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,1,2-Trichloroethane	5.9		5.0	1.3	ug/L			08/14/17 16:02	5
Trichloroethene	150		5.0	1.3	ug/L			08/14/17 16:02	5
Trichlorofluoromethane	32		5.0	1.3	ug/L			08/14/17 16:02	5
1,2,3-Trichloropropane	ND		5.0	2.0	ug/L			08/14/17 16:02	5
1,1,2-Trichloro-1,2,2-trifluoroethane	52		25	2.5	ug/L			08/14/17 16:02	5
1,2,4-Trimethylbenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
1,3,5-Trimethylbenzene	ND		5.0	1.3	ug/L			08/14/17 16:02	5
Vinyl chloride	ND		2.5	1.3	ug/L			08/14/17 16:02	5
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/14/17 16:02	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		80 - 120					08/14/17 16:02	5
Dibromofluoromethane (Surr)	102		76 - 132					08/14/17 16:02	5
Toluene-d8 (Surr)	95		80 - 128					08/14/17 16:02	5
1,2-Dichloroethane-d4 (Surr)	98		70 - 130					08/14/17 16:02	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	2100		25	6.3	ug/L			08/14/17 16:32	25
Surrogate									
%Recovery									
4-Bromofluorobenzene (Surr)									
97									
80 - 120									
Dibromofluoromethane (Surr)									
100									
76 - 132									
Toluene-d8 (Surr)									
96									
80 - 128									
1,2-Dichloroethane-d4 (Surr)									
92									
70 - 130									

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	860		50	10	ug/L			08/14/17 11:17	100
Surrogate									
%Recovery									
1,4-Dioxane-d8 (Surr)									
0									
X									
36 - 90									
Prepared									
08/14/17 11:17									
Analyzed									
08/15/17 21:03									
Dil Fac									
100									

Client Sample ID: OC_GW_OW-11_20170810

Lab Sample ID: 440-190083-2

Matrix: Water

Date Collected: 08/10/17 12:00

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/14/17 13:35	1
Benzene	ND		0.50	0.25	ug/L			08/14/17 13:35	1
Bromobenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Bromoform	ND		1.0	0.25	ug/L			08/14/17 13:35	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-11_20170810

Lab Sample ID: 440-190083-2

Matrix: Water

Date Collected: 08/10/17 12:00

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Bromoform	ND		1.0	0.40	ug/L			08/14/17 13:35	1
Bromomethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/14/17 13:35	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Chloroethane	ND		1.0	0.40	ug/L			08/14/17 13:35	1
Chloroform	0.48 J		1.0	0.25	ug/L			08/14/17 13:35	1
Chloromethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/14/17 13:35	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/14/17 13:35	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Dibromomethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/14/17 13:35	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,1-Dichloroethene	31		1.0	0.25	ug/L			08/14/17 13:35	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/14/17 13:35	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Isopropyl alcohol	ND		250	180	ug/L			08/14/17 13:35	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Methylene Chloride	0.97 J		5.0	0.88	ug/L			08/14/17 13:35	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/14/17 13:35	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/14/17 13:35	1
Naphthalene	ND		1.0	0.40	ug/L			08/14/17 13:35	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/14/17 13:35	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
o-Xylene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Styrene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Tetrachloroethene	170		1.0	0.25	ug/L			08/14/17 13:35	1
Toluene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/14/17 13:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/14/17 13:35	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-11_20170810

Lab Sample ID: 440-190083-2

Matrix: Water

Date Collected: 08/10/17 12:00

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/14/17 13:35	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Trichloroethene	39		1.0	0.25	ug/L			08/14/17 13:35	1
Trichlorofluoromethane	20		1.0	0.25	ug/L			08/14/17 13:35	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/14/17 13:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	58		5.0	0.50	ug/L			08/14/17 13:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/14/17 13:35	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/14/17 13:35	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/14/17 13:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		80 - 120					08/14/17 13:35	1
Dibromofluoromethane (Surr)	101		76 - 132					08/14/17 13:35	1
Toluene-d8 (Surr)	95		80 - 128					08/14/17 13:35	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130					08/14/17 13:35	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.15	J	0.50	0.10	ug/L		08/14/17 11:17	08/15/17 19:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	65		36 - 90				08/14/17 11:17	08/15/17 19:09	1

Client Sample ID: OC_GW_OW-12_20170811

Lab Sample ID: 440-190083-3

Matrix: Water

Date Collected: 08/11/17 06:45

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50	50	ug/L			08/14/17 17:02	5
Benzene	ND		2.5	1.3	ug/L			08/14/17 17:02	5
Bromobenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Bromochloromethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Bromodichloromethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Bromoform	ND		5.0	2.0	ug/L			08/14/17 17:02	5
Bromomethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Carbon tetrachloride	ND		2.5	1.3	ug/L			08/14/17 17:02	5
Chlorobenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Chloroethane	ND		5.0	2.0	ug/L			08/14/17 17:02	5
Chloroform	120		5.0	1.3	ug/L			08/14/17 17:02	5
Chloromethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
2-Chlorotoluene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
4-Chlorotoluene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
cis-1,2-Dichloroethene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
cis-1,3-Dichloropropene	ND		2.5	1.3	ug/L			08/14/17 17:02	5
Dibromochloromethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-12_20170811

Lab Sample ID: 440-190083-3

Matrix: Water

Date Collected: 08/11/17 06:45

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		25	2.5	ug/L			08/14/17 17:02	5
1,2-Dibromoethane (EDB)	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Dibromomethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
1,2-Dichlorobenzene	3.6 J		5.0	1.3	ug/L			08/14/17 17:02	5
1,3-Dichlorobenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
1,4-Dichlorobenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Dichlorodifluoromethane	ND		5.0	2.0	ug/L			08/14/17 17:02	5
1,1-Dichloroethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
1,2-Dichloroethane	5.1		5.0	1.3	ug/L			08/14/17 17:02	5
1,1-Dichloroethene	84		5.0	1.3	ug/L			08/14/17 17:02	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
1,3-Dichloropropane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
2,2-Dichloropropane	ND		5.0	2.0	ug/L			08/14/17 17:02	5
1,1-Dichloropropene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Ethylbenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Hexachlorobutadiene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Isopropyl alcohol	ND		1300	880	ug/L			08/14/17 17:02	5
Isopropylbenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Methylene Chloride	7.6 J		25	4.4	ug/L			08/14/17 17:02	5
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.3	ug/L			08/14/17 17:02	5
m,p-Xylene	ND		5.0	2.5	ug/L			08/14/17 17:02	5
Naphthalene	ND		5.0	2.0	ug/L			08/14/17 17:02	5
n-Butylbenzene	ND		5.0	2.0	ug/L			08/14/17 17:02	5
N-Propylbenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
o-Xylene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
p-Isopropyltoluene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
sec-Butylbenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Styrene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
tert-Butylbenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
1,1,1,2-Tetrachloroethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Toluene	9.0		5.0	1.3	ug/L			08/14/17 17:02	5
trans-1,2-Dichloroethene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
trans-1,3-Dichloropropene	ND		2.5	1.3	ug/L			08/14/17 17:02	5
1,2,3-Trichlorobenzene	ND		5.0	2.0	ug/L			08/14/17 17:02	5
1,2,4-Trichlorobenzene	ND		5.0	2.0	ug/L			08/14/17 17:02	5
1,1,1-Trichloroethane	68		5.0	1.3	ug/L			08/14/17 17:02	5
1,1,2-Trichloroethane	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Trichloroethene	210		5.0	1.3	ug/L			08/14/17 17:02	5
Trichlorofluoromethane	42		5.0	1.3	ug/L			08/14/17 17:02	5
1,2,3-Trichloropropane	ND		5.0	2.0	ug/L			08/14/17 17:02	5
1,1,2-Trichloro-1,2,2-trifluoroethane	1100		25	2.5	ug/L			08/14/17 17:02	5
1,2,4-Trimethylbenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
1,3,5-Trimethylbenzene	ND		5.0	1.3	ug/L			08/14/17 17:02	5
Vinyl chloride	ND		2.5	1.3	ug/L			08/14/17 17:02	5
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/14/17 17:02	5

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-12_20170811

Lab Sample ID: 440-190083-3

Matrix: Water

Date Collected: 08/11/17 06:45

Date Received: 08/11/17 18:10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120		08/14/17 17:02	5
Dibromofluoromethane (Surr)	102		76 - 132		08/14/17 17:02	5
Toluene-d8 (Surr)	95		80 - 128		08/14/17 17:02	5
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		08/14/17 17:02	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1700		25	6.3	ug/L			08/14/17 17:31	25
Surrogate									
4-Bromofluorobenzene (Surr)									
94									
Dibromofluoromethane (Surr)									
101									
Toluene-d8 (Surr)									
96									
1,2-Dichloroethane-d4 (Surr)									
97									

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	9.4		0.50	0.099	ug/L		08/14/17 11:17	08/15/17 19:32	1
Surrogate									
1,4-Dioxane-d8 (Surr)									
67									
Prepared									
08/14/17 11:17									
Analyzed									
08/15/17 19:32									
Dil Fac									
1									

Client Sample ID: OC_GW_OW-9K_20170810

Lab Sample ID: 440-190083-4

Matrix: Water

Date Collected: 08/10/17 08:15

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50	50	ug/L			08/15/17 01:48	5
Benzene	ND		2.5	1.3	ug/L			08/15/17 01:48	5
Bromobenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Bromochloromethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Bromodichloromethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Bromoform	ND		5.0	2.0	ug/L			08/15/17 01:48	5
Bromomethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Carbon tetrachloride	ND		2.5	1.3	ug/L			08/15/17 01:48	5
Chlorobenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Chloroethane	ND		5.0	2.0	ug/L			08/15/17 01:48	5
Chloroform	290		5.0	1.3	ug/L			08/15/17 01:48	5
Chloromethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
2-Chlorotoluene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
4-Chlorotoluene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
cis-1,2-Dichloroethene	16		5.0	1.3	ug/L			08/15/17 01:48	5
cis-1,3-Dichloropropene	ND		2.5	1.3	ug/L			08/15/17 01:48	5
Dibromochloromethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,2-Dibromo-3-Chloropropane	ND		25	2.5	ug/L			08/15/17 01:48	5
1,2-Dibromoethane (EDB)	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Dibromomethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,2-Dichlorobenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,3-Dichlorobenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,4-Dichlorobenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-9K_20170810

Lab Sample ID: 440-190083-4

Matrix: Water

Date Collected: 08/10/17 08:15

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		5.0	2.0	ug/L			08/15/17 01:48	5
1,1-Dichloroethane	9.0		5.0	1.3	ug/L			08/15/17 01:48	5
1,2-Dichloroethane	87		5.0	1.3	ug/L			08/15/17 01:48	5
1,1-Dichloroethene	180		5.0	1.3	ug/L			08/15/17 01:48	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,3-Dichloropropane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
2,2-Dichloropropane	ND		5.0	2.0	ug/L			08/15/17 01:48	5
1,1-Dichloropropene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Ethylbenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Hexachlorobutadiene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Isopropyl alcohol	ND		1300	880	ug/L			08/15/17 01:48	5
Isopropylbenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Methylene Chloride	6.3 J		25	4.4	ug/L			08/15/17 01:48	5
Methyl-t-Butyl Ether (MTBE)	ND		5.0	1.3	ug/L			08/15/17 01:48	5
m,p-Xylene	ND		5.0	2.5	ug/L			08/15/17 01:48	5
Naphthalene	ND		5.0	2.0	ug/L			08/15/17 01:48	5
n-Butylbenzene	ND		5.0	2.0	ug/L			08/15/17 01:48	5
N-Propylbenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
o-Xylene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
p-Isopropyltoluene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
sec-Butylbenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Styrene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
tert-Butylbenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,1,1,2-Tetrachloroethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Toluene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
trans-1,2-Dichloroethene	3.1 J		5.0	1.3	ug/L			08/15/17 01:48	5
trans-1,3-Dichloropropene	ND		2.5	1.3	ug/L			08/15/17 01:48	5
1,2,3-Trichlorobenzene	ND		5.0	2.0	ug/L			08/15/17 01:48	5
1,2,4-Trichlorobenzene	ND		5.0	2.0	ug/L			08/15/17 01:48	5
1,1,1-Trichloroethane	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,1,2-Trichloroethane	6.5		5.0	1.3	ug/L			08/15/17 01:48	5
Trichloroethene	150		5.0	1.3	ug/L			08/15/17 01:48	5
Trichlorofluoromethane	31		5.0	1.3	ug/L			08/15/17 01:48	5
1,2,3-Trichloropropane	ND		5.0	2.0	ug/L			08/15/17 01:48	5
1,1,2-Trichloro-1,2,2-trifluoroethane	62		25	2.5	ug/L			08/15/17 01:48	5
1,2,4-Trimethylbenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
1,3,5-Trimethylbenzene	ND		5.0	1.3	ug/L			08/15/17 01:48	5
Vinyl chloride	ND		2.5	1.3	ug/L			08/15/17 01:48	5

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/15/17 01:48	5
Surrogate									
4-Bromofluorobenzene (Surr)	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					08/15/17 01:48	5
Dibromofluoromethane (Surr)	105		76 - 132					08/15/17 01:48	5
Toluene-d8 (Surr)	92		80 - 128					08/15/17 01:48	5
1,2-Dichloroethane-d4 (Surr)	111		70 - 130					08/15/17 01:48	5

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-9K_20170810

Lab Sample ID: 440-190083-4

Matrix: Water

Date Collected: 08/10/17 08:15

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	2200		25	6.3	ug/L			08/15/17 02:15	25
Surrogate									
4-Bromofluorobenzene (Surr)	103	%Recovery	Limits				Prepared	Analyzed	Dil Fac
			80 - 120					08/15/17 02:15	25
Dibromofluoromethane (Surr)	104		76 - 132					08/15/17 02:15	25
Toluene-d8 (Surr)	91		80 - 128					08/15/17 02:15	25
1,2-Dichloroethane-d4 (Surr)	111		70 - 130					08/15/17 02:15	25

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	790		50	9.9	ug/L			08/15/17 21:24	100
Surrogate									
1,4-Dioxane-d8 (Surr)	80	%Recovery	Limits				Prepared	Analyzed	Dil Fac
			36 - 90					08/15/17 21:24	100

Client Sample ID: OC_GW_OW-11N_20170810

Lab Sample ID: 440-190083-5

Matrix: Water

Date Collected: 08/10/17 12:55

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	21		10	10	ug/L			08/15/17 02:43	1
Benzene	ND		0.50	0.25	ug/L			08/15/17 02:43	1
Bromobenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Bromoform	ND		1.0	0.40	ug/L			08/15/17 02:43	1
Bromomethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/15/17 02:43	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Chloroethane	ND		1.0	0.40	ug/L			08/15/17 02:43	1
Chloroform	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Chloromethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/15/17 02:43	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/15/17 02:43	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Dibromomethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/15/17 02:43	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/15/17 02:43	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-11N_20170810

Lab Sample ID: 440-190083-5

Matrix: Water

Date Collected: 08/10/17 12:55

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/15/17 02:43	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Isopropyl alcohol	230	J	250	180	ug/L			08/15/17 02:43	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/15/17 02:43	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/15/17 02:43	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/15/17 02:43	1
Naphthalene	ND		1.0	0.40	ug/L			08/15/17 02:43	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/15/17 02:43	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
o-Xylene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Styrene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Toluene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/15/17 02:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/15/17 02:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/15/17 02:43	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Trichloroethene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/15/17 02:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/15/17 02:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/15/17 02:43	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/15/17 02:43	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/15/17 02:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					08/15/17 02:43	1
Dibromofluoromethane (Surr)	103		76 - 132					08/15/17 02:43	1
Toluene-d8 (Surr)	90		80 - 128					08/15/17 02:43	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130					08/15/17 02:43	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_TB_20170810

Lab Sample ID: 440-190083-6

Matrix: Water

Date Collected: 08/10/17 07:00

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/14/17 15:32	1
Benzene	ND		0.50	0.25	ug/L			08/14/17 15:32	1
Bromobenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Bromoform	ND		1.0	0.40	ug/L			08/14/17 15:32	1
Bromomethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/14/17 15:32	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Chloroethane	ND		1.0	0.40	ug/L			08/14/17 15:32	1
Chloroform	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Chloromethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/14/17 15:32	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/14/17 15:32	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Dibromomethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/14/17 15:32	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/14/17 15:32	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Isopropyl alcohol	ND		250	180	ug/L			08/14/17 15:32	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Methylene Chloride	0.99	J	5.0	0.88	ug/L			08/14/17 15:32	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/14/17 15:32	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/14/17 15:32	1
Naphthalene	ND		1.0	0.40	ug/L			08/14/17 15:32	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/14/17 15:32	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
o-Xylene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Styrene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/14/17 15:32	1

TestAmerica Irvine

Client Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_TB_20170810

Lab Sample ID: 440-190083-6

Matrix: Water

Date Collected: 08/10/17 07:00

Date Received: 08/11/17 18:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/14/17 15:32	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/14/17 15:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/14/17 15:32	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Trichloroethene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/14/17 15:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/14/17 15:32	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/14/17 15:32	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/14/17 15:32	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/14/17 15:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		80 - 120					08/14/17 15:32	1
Dibromofluoromethane (Surr)	100		76 - 132					08/14/17 15:32	1
Toluene-d8 (Surr)	95		80 - 128					08/14/17 15:32	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130					08/14/17 15:32	1

Surrogate Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-190083-1	OC_GW_OW-9_20170810	94	102	95	98
440-190083-1 - DL	OC_GW_OW-9_20170810	97	100	96	92
440-190083-2	OC_GW_OW-11_20170810	94	101	95	96
440-190083-2 MS	OC_GW_OW-11_20170810	93	103	89	97
440-190083-2 MSD	OC_GW_OW-11_20170810	94	102	88	96
440-190083-3	OC_GW_OW-12_20170811	97	102	95	89
440-190083-3 - DL	OC_GW_OW-12_20170811	94	101	96	97
440-190083-4	OC_GW_OW-9K_20170810	101	105	92	111
440-190083-4 - DL	OC_GW_OW-9K_20170810	103	104	91	111
440-190083-5	OC_GW_OW-11N_20170810	102	103	90	111
440-190083-6	OC_GW_TB_20170810	95	100	95	96
440-190169-A-5 MS	Matrix Spike	103	108	102	115
440-190169-A-5 MSD	Matrix Spike Duplicate	106	106	102	111
LCS 440-423019/5	Lab Control Sample	102	108	107	112
LCS 440-423019/7	Lab Control Sample	94	100	94	99
LCS 440-423180/18	Lab Control Sample	104	106	109	112
LCS 440-423180/5	Lab Control Sample	105	105	103	113
MB 440-423019/4	Method Blank	102	110	111	115
MB 440-423180/4	Method Blank	107	107	109	114

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		14DD8 (36-90)	
440-190083-1	OC_GW_OW-9_20170810	0 X	
440-190083-2	OC_GW_OW-11_20170810	65	
440-190083-3	OC_GW_OW-12_20170811	67	
440-190083-4	OC_GW_OW-9K_20170810	80	
LCS 440-423108/3-A	Lab Control Sample	67	
LCSD 440-423108/4-A	Lab Control Sample Dup	65	
MB 440-423108/1-A	Method Blank	65	

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

Method Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_OW-9_20170810

Lab Sample ID: 440-190083-1

Matrix: Water

Date Collected: 08/10/17 08:12

Date Received: 08/11/17 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	10 mL	10 mL	423019	08/14/17 16:02	RM	TAL IRV
Total/NA	Analysis	8260B	DL	25	10 mL	10 mL	423019	08/14/17 16:32	RM	TAL IRV
Total/NA	Prep	3520C			1005 mL	1.0 mL	423108	08/14/17 11:17	L1A	TAL IRV
Total/NA	Analysis	8270C SIM		100			423423	08/15/17 21:03	HN	TAL IRV

Client Sample ID: OC_GW_OW-11_20170810

Lab Sample ID: 440-190083-2

Matrix: Water

Date Collected: 08/10/17 12:00

Date Received: 08/11/17 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	423019	08/14/17 13:35	RM	TAL IRV
Total/NA	Prep	3520C			1000 mL	1.0 mL	423108	08/14/17 11:17	L1A	TAL IRV
Total/NA	Analysis	8270C SIM		1			423423	08/15/17 19:09	HN	TAL IRV

Client Sample ID: OC_GW_OW-12_20170811

Lab Sample ID: 440-190083-3

Matrix: Water

Date Collected: 08/11/17 06:45

Date Received: 08/11/17 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	10 mL	10 mL	423019	08/14/17 17:02	RM	TAL IRV
Total/NA	Analysis	8260B	DL	25	10 mL	10 mL	423019	08/14/17 17:31	RM	TAL IRV
Total/NA	Prep	3520C			1010 mL	1.0 mL	423108	08/14/17 11:17	L1A	TAL IRV
Total/NA	Analysis	8270C SIM		1			423423	08/15/17 19:32	HN	TAL IRV

Client Sample ID: OC_GW_OW-9K_20170810

Lab Sample ID: 440-190083-4

Matrix: Water

Date Collected: 08/10/17 08:15

Date Received: 08/11/17 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	10 mL	10 mL	423180	08/15/17 01:48	K1S	TAL IRV
Total/NA	Analysis	8260B	DL	25	10 mL	10 mL	423180	08/15/17 02:15	K1S	TAL IRV
Total/NA	Prep	3520C			1010 mL	1.0 mL	423108	08/14/17 11:17	L1A	TAL IRV
Total/NA	Analysis	8270C SIM		100			423423	08/15/17 21:24	HN	TAL IRV

Client Sample ID: OC_GW_OW-11N_20170810

Lab Sample ID: 440-190083-5

Matrix: Water

Date Collected: 08/10/17 12:55

Date Received: 08/11/17 18:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	423180	08/15/17 02:43	K1S	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Client Sample ID: OC_GW_TB_20170810

Date Collected: 08/10/17 07:00

Date Received: 08/11/17 18:10

Lab Sample ID: 440-190083-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	423019	08/14/17 15:32	RM	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-423019/4

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/14/17 09:38	1
Benzene	ND		0.50	0.25	ug/L			08/14/17 09:38	1
Bromobenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Bromoform	ND		1.0	0.40	ug/L			08/14/17 09:38	1
Bromomethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/14/17 09:38	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Chloroethane	ND		1.0	0.40	ug/L			08/14/17 09:38	1
Chloroform	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Chloromethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/14/17 09:38	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/14/17 09:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Dibromomethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/14/17 09:38	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Isopropyl alcohol	ND		250	180	ug/L			08/14/17 09:38	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/14/17 09:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/14/17 09:38	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/14/17 09:38	1
Naphthalene	ND		1.0	0.40	ug/L			08/14/17 09:38	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/14/17 09:38	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
o-Xylene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
Styrene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/14/17 09:38	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-423019/4

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND	ND									
Tetrachloroethene	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
Toluene	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
trans-1,2-Dichloroethene	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
trans-1,3-Dichloropropene	ND	ND			0.50	0.25	ug/L			08/14/17 09:38	1
1,2,3-Trichlorobenzene	ND	ND			1.0	0.40	ug/L			08/14/17 09:38	1
1,2,4-Trichlorobenzene	ND	ND			1.0	0.40	ug/L			08/14/17 09:38	1
1,1,1-Trichloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
1,1,2-Trichloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
Trichloroethene	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
Trichlorofluoromethane	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
1,2,3-Trichloropropane	ND	ND			1.0	0.40	ug/L			08/14/17 09:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND			5.0	0.50	ug/L			08/14/17 09:38	1
1,2,4-Trimethylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
1,3,5-Trimethylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 09:38	1
Vinyl chloride	ND	ND			0.50	0.25	ug/L			08/14/17 09:38	1

Tentatively Identified Compound	MB	MB	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	None	ug/L									
Surrogate	MB	MB	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102				80 - 120					08/14/17 09:38	1
Dibromofluoromethane (Surr)	110				76 - 132					08/14/17 09:38	1
Toluene-d8 (Surr)	111				80 - 128					08/14/17 09:38	1
1,2-Dichloroethane-d4 (Surr)	115				70 - 130					08/14/17 09:38	1

Lab Sample ID: LCS 440-423019/5

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS			%Rec.		
	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	25.0	28.2		ug/L		113	10 - 150
Benzene	25.0	25.3		ug/L		101	68 - 130
Bromobenzene	25.0	24.6		ug/L		99	70 - 130
Bromochloromethane	25.0	26.5		ug/L		106	70 - 130
Bromodichloromethane	25.0	26.6		ug/L		106	70 - 132
Bromoform	25.0	24.4		ug/L		97	60 - 148
Bromomethane	25.0	26.2		ug/L		105	64 - 139
Carbon tetrachloride	25.0	26.9		ug/L		108	60 - 150
Chlorobenzene	25.0	25.1		ug/L		101	70 - 130
Chloroethane	25.0	25.9		ug/L		104	64 - 135
Chloroform	25.0	26.1		ug/L		104	70 - 130
Chloromethane	25.0	26.3		ug/L		105	47 - 140
2-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130
4-Chlorotoluene	25.0	24.9		ug/L		100	70 - 130
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	70 - 133
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 133
Dibromochloromethane	25.0	25.8		ug/L		103	69 - 145

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-423019/5

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	52 - 140	
1,2-Dibromoethane (EDB)	25.0	24.6		ug/L		98	70 - 130	
Dibromomethane	25.0	25.3		ug/L		101	70 - 130	
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	
1,4-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130	
Dichlorodifluoromethane	25.0	28.7		ug/L		115	29 - 150	
1,1-Dichloroethane	25.0	26.1		ug/L		104	64 - 130	
1,2-Dichloroethane	25.0	26.0		ug/L		104	57 - 138	
1,1-Dichloroethene	25.0	24.1		ug/L		96	70 - 130	
1,2-Dichloropropane	25.0	25.5		ug/L		102	67 - 130	
1,3-Dichloropropane	25.0	25.3		ug/L		101	70 - 130	
2,2-Dichloropropane	25.0	26.1		ug/L		104	68 - 141	
1,1-Dichloropropene	25.0	26.5		ug/L		106	70 - 130	
Ethylbenzene	25.0	24.1		ug/L		96	70 - 130	
Hexachlorobutadiene	25.0	23.7		ug/L		95	10 - 150	
Isopropylbenzene	25.0	24.5		ug/L		98	70 - 136	
Methylene Chloride	25.0	22.9		ug/L		92	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	26.0		ug/L		104	63 - 131	
m,p-Xylene	25.0	24.6		ug/L		98	70 - 130	
Naphthalene	25.0	23.9		ug/L		96	60 - 140	
n-Butylbenzene	25.0	24.4		ug/L		98	65 - 150	
N-Propylbenzene	25.0	24.4		ug/L		98	67 - 139	
o-Xylene	25.0	24.8		ug/L		99	70 - 130	
p-Isopropyltoluene	25.0	24.5		ug/L		98	70 - 132	
sec-Butylbenzene	25.0	24.7		ug/L		99	70 - 138	
Styrene	25.0	24.5		ug/L		98	70 - 134	
tert-Butylbenzene	25.0	25.0		ug/L		100	70 - 130	
1,1,1,2-Tetrachloroethane	25.0	25.9		ug/L		103	60 - 141	
1,1,2,2-Tetrachloroethane	25.0	23.0		ug/L		92	63 - 130	
Tetrachloroethene	25.0	24.5		ug/L		98	70 - 130	
Toluene	25.0	24.1		ug/L		97	70 - 130	
trans-1,2-Dichloroethene	25.0	26.4		ug/L		105	70 - 130	
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 132	
1,2,3-Trichlorobenzene	25.0	24.7		ug/L		99	60 - 140	
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		98	60 - 140	
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	70 - 130	
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	70 - 130	
Trichloroethene	25.0	25.9		ug/L		104	70 - 130	
Trichlorofluoromethane	25.0	28.4		ug/L		114	60 - 150	
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	63 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.6		ug/L		98	60 - 140	
1,2,4-Trimethylbenzene	25.0	24.3		ug/L		97	70 - 135	
1,3,5-Trimethylbenzene	25.0	24.9		ug/L		100	70 - 136	
Vinyl chloride	25.0	27.3		ug/L		109	59 - 133	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-423019/5

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	108		76 - 132
Toluene-d8 (Surr)	107		80 - 128
1,2-Dichloroethane-d4 (Surr)	112		70 - 130

Lab Sample ID: LCS 440-423019/7

Matrix: Water

Analysis Batch: 423019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Isopropyl alcohol	250	233	J	ug/L	93	49 - 142	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	100		76 - 132
Toluene-d8 (Surr)	94		80 - 128
1,2-Dichloroethane-d4 (Surr)	99		70 - 130

Lab Sample ID: 440-190083-2 MS

Matrix: Water

Analysis Batch: 423019

Client Sample ID: OC_GW_OW-11_20170810

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Acetone	ND		25.0	30.8		ug/L	123	10 - 150	
Benzene	ND		25.0	25.2		ug/L	101	66 - 130	
Bromobenzene	ND		25.0	24.5		ug/L	98	70 - 130	
Bromochloromethane	ND		25.0	26.8		ug/L	107	70 - 130	
Bromodichloromethane	ND		25.0	28.1		ug/L	112	70 - 138	
Bromoform	ND		25.0	26.6		ug/L	107	59 - 150	
Bromomethane	ND		25.0	24.7		ug/L	99	62 - 131	
Carbon tetrachloride	ND		25.0	26.2		ug/L	105	60 - 150	
Chlorobenzene	ND		25.0	24.9		ug/L	100	70 - 130	
Chloroethane	ND		25.0	25.1		ug/L	100	68 - 130	
Chloroform	0.48	J	25.0	27.0		ug/L	106	70 - 130	
Chloromethane	ND		25.0	24.7		ug/L	99	39 - 144	
2-Chlorotoluene	ND		25.0	23.7		ug/L	95	70 - 130	
4-Chlorotoluene	ND		25.0	24.9		ug/L	100	70 - 130	
cis-1,2-Dichloroethene	ND		25.0	25.9		ug/L	104	70 - 130	
cis-1,3-Dichloropropene	ND		25.0	25.8		ug/L	103	70 - 133	
Dibromochloromethane	ND		25.0	26.4		ug/L	106	70 - 148	
1,2-Dibromo-3-Chloropropane	ND		25.0	27.4		ug/L	110	48 - 140	
1,2-Dibromoethane (EDB)	ND		25.0	25.2		ug/L	101	70 - 131	
Dibromomethane	ND		25.0	25.8		ug/L	103	70 - 130	
1,2-Dichlorobenzene	ND		25.0	25.5		ug/L	102	70 - 130	
1,3-Dichlorobenzene	ND		25.0	24.9		ug/L	100	70 - 130	
1,4-Dichlorobenzene	ND		25.0	24.4		ug/L	98	70 - 130	
Dichlorodifluoromethane	ND		25.0	26.3		ug/L	105	25 - 142	
1,1-Dichloroethane	ND		25.0	25.9		ug/L	104	65 - 130	

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190083-2 MS

Matrix: Water

Analysis Batch: 423019

Client Sample ID: OC_GW_OW-11_20170810

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits	
	Result	Qualifier	Added	Result	Qualifier						
1,2-Dichloroethane	ND		25.0	27.5		ug/L		110	56 - 146		
1,1-Dichloroethene	31		25.0	55.4		ug/L		96	70 - 130		
1,2-Dichloropropane	ND		25.0	26.0		ug/L		104	69 - 130		
1,3-Dichloropropane	ND		25.0	25.4		ug/L		101	70 - 130		
2,2-Dichloropropane	ND		25.0	25.9		ug/L		104	69 - 138		
1,1-Dichloropropene	ND		25.0	26.2		ug/L		105	64 - 130		
Ethylbenzene	ND		25.0	23.6		ug/L		94	70 - 130		
Hexachlorobutadiene	ND		25.0	23.5		ug/L		94	10 - 150		
Isopropyl alcohol	ND		250	288		ug/L		115	46 - 142		
Isopropylbenzene	ND		25.0	24.4		ug/L		98	70 - 132		
Methylene Chloride	0.97	J	25.0	23.9		ug/L		92	52 - 130		
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.8		ug/L		111	70 - 130		
m,p-Xylene	ND		25.0	24.8		ug/L		99	70 - 133		
Naphthalene	ND		25.0	24.9		ug/L		99	60 - 140		
n-Butylbenzene	ND		25.0	23.8		ug/L		95	61 - 149		
N-Propylbenzene	ND		25.0	23.3		ug/L		93	66 - 135		
o-Xylene	ND		25.0	24.6		ug/L		98	70 - 133		
p-Isopropyltoluene	ND		25.0	24.2		ug/L		97	70 - 130		
sec-Butylbenzene	ND		25.0	23.6		ug/L		95	67 - 134		
Styrene	ND		25.0	24.6		ug/L		98	29 - 150		
tert-Butylbenzene	ND		25.0	23.8		ug/L		95	70 - 130		
1,1,1,2-Tetrachloroethane	ND		25.0	26.6		ug/L		107	60 - 149		
1,1,2,2-Tetrachloroethane	ND		25.0	24.6		ug/L		99	63 - 130		
Tetrachloroethene	170		25.0	186	4	ug/L		59	70 - 137		
Toluene	ND		25.0	24.1		ug/L		96	70 - 130		
trans-1,2-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130		
trans-1,3-Dichloropropene	ND		25.0	26.2		ug/L		105	70 - 138		
1,2,3-Trichlorobenzene	ND		25.0	25.9		ug/L		104	60 - 140		
1,2,4-Trichlorobenzene	ND		25.0	25.6		ug/L		103	60 - 140		
1,1,1-Trichloroethane	ND		25.0	26.4		ug/L		105	70 - 130		
1,1,2-Trichloroethane	ND		25.0	26.1		ug/L		104	70 - 130		
Trichloroethene	39		25.0	64.3		ug/L		103	70 - 130		
Trichlorofluoromethane	20		25.0	47.0		ug/L		109	60 - 150		
1,2,3-Trichloropropane	ND		25.0	26.3		ug/L		105	60 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	58		25.0	84.5		ug/L		106	60 - 140		
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.1		ug/L		97	70 - 130		
1,3,5-Trimethylbenzene	ND		25.0	24.3		ug/L		97	70 - 130		
Vinyl chloride	ND		25.0	25.8		ug/L		103	50 - 137		
MS											
Surrogate	%Recovery	Qualifier		MS	MS						
4-Bromofluorobenzene (Surr)	93			80 - 120							
Dibromofluoromethane (Surr)	103			76 - 132							
Toluene-d8 (Surr)	89			80 - 128							
1,2-Dichloroethane-d4 (Surr)	97			70 - 130							

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190083-2 MSD

Matrix: Water

Analysis Batch: 423019

Client Sample ID: OC_GW_OW-11_20170810

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Acetone	ND		25.0	26.2		ug/L		105	10 - 150	16	35
Benzene	ND		25.0	25.5		ug/L		102	66 - 130	1	20
Bromobenzene	ND		25.0	24.7		ug/L		99	70 - 130	1	20
Bromochloromethane	ND		25.0	26.9		ug/L		108	70 - 130	0	25
Bromodichloromethane	ND		25.0	27.7		ug/L		111	70 - 138	1	20
Bromoform	ND		25.0	24.3		ug/L		97	59 - 150	9	25
Bromomethane	ND		25.0	25.6		ug/L		102	62 - 131	3	25
Carbon tetrachloride	ND		25.0	26.6		ug/L		106	60 - 150	1	25
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
Chloroethane	ND		25.0	26.3		ug/L		105	68 - 130	5	25
Chloroform	0.48 J		25.0	27.1		ug/L		107	70 - 130	0	20
Chloromethane	ND		25.0	27.4		ug/L		110	39 - 144	10	25
2-Chlorotoluene	ND		25.0	23.4		ug/L		94	70 - 130	1	20
4-Chlorotoluene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
cis-1,2-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130	1	20
cis-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	70 - 133	4	20
Dibromochloromethane	ND		25.0	25.1		ug/L		101	70 - 148	5	25
1,2-Dibromo-3-Chloropropane	ND		25.0	24.1		ug/L		96	48 - 140	13	30
1,2-Dibromoethane (EDB)	ND		25.0	23.3		ug/L		93	70 - 131	8	25
Dibromomethane	ND		25.0	25.2		ug/L		101	70 - 130	3	25
1,2-Dichlorobenzene	ND		25.0	24.8		ug/L		99	70 - 130	3	20
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130	2	20
1,4-Dichlorobenzene	ND		25.0	23.9		ug/L		96	70 - 130	2	20
Dichlorodifluoromethane	ND		25.0	27.7		ug/L		111	25 - 142	5	30
1,1-Dichloroethane	ND		25.0	26.6		ug/L		107	65 - 130	3	20
1,2-Dichloroethane	ND		25.0	26.5		ug/L		106	56 - 146	4	20
1,1-Dichloroethene	31		25.0	56.2		ug/L		99	70 - 130	1	20
1,2-Dichloropropane	ND		25.0	25.3		ug/L		101	69 - 130	3	20
1,3-Dichloropropane	ND		25.0	23.5		ug/L		94	70 - 130	7	25
2,2-Dichloropropane	ND		25.0	26.4		ug/L		106	69 - 138	2	25
1,1-Dichloropropene	ND		25.0	26.3		ug/L		105	64 - 130	0	20
Ethylbenzene	ND		25.0	23.5		ug/L		94	70 - 130	0	20
Hexachlorobutadiene	ND		25.0	23.5		ug/L		94	10 - 150	0	20
Isopropyl alcohol	ND		250	294		ug/L		117	46 - 142	2	40
Isopropylbenzene	ND		25.0	24.1		ug/L		96	70 - 132	2	20
Methylene Chloride	0.97 J		25.0	23.9		ug/L		92	52 - 130	0	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.5		ug/L		106	70 - 130	5	25
m,p-Xylene	ND		25.0	24.3		ug/L		97	70 - 133	2	25
Naphthalene	ND		25.0	23.3		ug/L		93	60 - 140	6	30
n-Butylbenzene	ND		25.0	24.1		ug/L		97	61 - 149	1	20
N-Propylbenzene	ND		25.0	23.7		ug/L		95	66 - 135	1	20
o-Xylene	ND		25.0	24.2		ug/L		97	70 - 133	2	20
p-Isopropyltoluene	ND		25.0	24.5		ug/L		98	70 - 130	1	20
sec-Butylbenzene	ND		25.0	24.2		ug/L		97	67 - 134	2	20
Styrene	ND		25.0	23.9		ug/L		96	29 - 150	3	35
tert-Butylbenzene	ND		25.0	24.5		ug/L		98	70 - 130	3	20
1,1,1,2-Tetrachloroethane	ND		25.0	25.5		ug/L		102	60 - 149	4	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.4		ug/L		89	63 - 130	10	30

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190083-2 MSD

Matrix: Water

Analysis Batch: 423019

Client Sample ID: OC_GW_OW-11_20170810

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Tetrachloroethene	170		25.0	181	4	ug/L	40	70 - 137	3	20	
Toluene	ND		25.0	23.6		ug/L	94	70 - 130	2	20	
trans-1,2-Dichloroethene	ND		25.0	26.0		ug/L	104	70 - 130	2	20	
trans-1,3-Dichloropropene	ND		25.0	24.6		ug/L	98	70 - 138	6	25	
1,2,3-Trichlorobenzene	ND		25.0	24.9		ug/L	100	60 - 140	4	20	
1,2,4-Trichlorobenzene	ND		25.0	25.1		ug/L	100	60 - 140	2	20	
1,1,1-Trichloroethane	ND		25.0	26.2		ug/L	105	70 - 130	1	20	
1,1,2-Trichloroethane	ND		25.0	23.3		ug/L	93	70 - 130	11	25	
Trichloroethene	39		25.0	64.2		ug/L	103	70 - 130	0	20	
Trichlorofluoromethane	20		25.0	47.5		ug/L	111	60 - 150	1	25	
1,2,3-Trichloropropane	ND		25.0	23.8		ug/L	95	60 - 130	10	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	58		25.0	85.3		ug/L	110	60 - 140	1	20	
ne											
1,2,4-Trimethylbenzene	ND		25.0	24.2		ug/L	97	70 - 130	0	25	
1,3,5-Trimethylbenzene	ND		25.0	24.5		ug/L	98	70 - 130	1	20	
Vinyl chloride	ND		25.0	27.0		ug/L	108	50 - 137	5	30	

MSD MSD

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	88		80 - 128
1,2-Dichloroethane-d4 (Surr)	96		70 - 130

Lab Sample ID: MB 440-423180/4

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		10	10	ug/L			08/14/17 18:51	1
Benzene	ND		0.50	0.25	ug/L			08/14/17 18:51	1
Bromobenzene	ND		1.0	0.25	ug/L			08/14/17 18:51	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/14/17 18:51	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/14/17 18:51	1
Bromoform	ND		1.0	0.40	ug/L			08/14/17 18:51	1
Bromomethane	ND		1.0	0.25	ug/L			08/14/17 18:51	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/14/17 18:51	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/14/17 18:51	1
Chloroethane	ND		1.0	0.40	ug/L			08/14/17 18:51	1
Chloroform	ND		1.0	0.25	ug/L			08/14/17 18:51	1
Chloromethane	ND		1.0	0.25	ug/L			08/14/17 18:51	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 18:51	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/14/17 18:51	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/14/17 18:51	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/14/17 18:51	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/14/17 18:51	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/14/17 18:51	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/14/17 18:51	1
Dibromomethane	ND		1.0	0.25	ug/L			08/14/17 18:51	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-423180/4

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	MB	MB									
1,2-Dichlorobenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,3-Dichlorobenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,4-Dichlorobenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Dichlorodifluoromethane	ND	ND			1.0	0.40	ug/L			08/14/17 18:51	1
1,1-Dichloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,2-Dichloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,1-Dichloroethene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,2-Dichloropropane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,3-Dichloropropane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
2,2-Dichloropropane	ND	ND			1.0	0.40	ug/L			08/14/17 18:51	1
1,1-Dichloropropene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Ethylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Hexachlorobutadiene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Isopropyl alcohol	ND	ND			250	180	ug/L			08/14/17 18:51	1
Isopropylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Methylene Chloride	ND	ND			5.0	0.88	ug/L			08/14/17 18:51	1
Methyl-t-Butyl Ether (MTBE)	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
m,p-Xylene	ND	ND			1.0	0.50	ug/L			08/14/17 18:51	1
Naphthalene	ND	ND			1.0	0.40	ug/L			08/14/17 18:51	1
n-Butylbenzene	ND	ND			1.0	0.40	ug/L			08/14/17 18:51	1
N-Propylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
o-Xylene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
p-Isopropyltoluene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
sec-Butylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Styrene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
tert-Butylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,1,1,2-Tetrachloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,1,2,2-Tetrachloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Tetrachloroethene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Toluene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
trans-1,2-Dichloroethene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
trans-1,3-Dichloropropene	ND	ND			0.50	0.25	ug/L			08/14/17 18:51	1
1,2,3-Trichlorobenzene	ND	ND			1.0	0.40	ug/L			08/14/17 18:51	1
1,2,4-Trichlorobenzene	ND	ND			1.0	0.40	ug/L			08/14/17 18:51	1
1,1,1-Trichloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,1,2-Trichloroethane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Trichloroethene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Trichlorofluoromethane	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,2,3-Trichloropropane	ND	ND			1.0	0.40	ug/L			08/14/17 18:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND			5.0	0.50	ug/L			08/14/17 18:51	1
1,2,4-Trimethylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
1,3,5-Trimethylbenzene	ND	ND			1.0	0.25	ug/L			08/14/17 18:51	1
Vinyl chloride	ND	ND			0.50	0.25	ug/L			08/14/17 18:51	1

Tentatively Identified Compound	MB	MB	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	MB	MB									
Tentatively Identified Compound	None	None			ug/L					08/14/17 18:51	1

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-423180/4

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		107			80 - 120		08/14/17 18:51	1
Dibromofluoromethane (Surr)		107			76 - 132		08/14/17 18:51	1
Toluene-d8 (Surr)		109			80 - 128		08/14/17 18:51	1
1,2-Dichloroethane-d4 (Surr)		114			70 - 130		08/14/17 18:51	1

Lab Sample ID: LCS 440-423180/18

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	MB	MB	Spike Added	LCS	LCS	Unit	D	%Rec. Limits
				Result	Qualifier			
Isopropyl alcohol			250	228	J	ug/L	91	49 - 142

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104				80 - 120
Dibromofluoromethane (Surr)	106				76 - 132
Toluene-d8 (Surr)	109				80 - 128
1,2-Dichloroethane-d4 (Surr)	112				70 - 130

Lab Sample ID: LCS 440-423180/5

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	MB	MB	Spike Added	LCS	LCS	Unit	D	%Rec. Limits
				Result	Qualifier			
Acetone			25.0	33.4		ug/L	134	10 - 150
Benzene			25.0	26.8		ug/L	107	68 - 130
Bromobenzene			25.0	27.0		ug/L	108	70 - 130
Bromochloromethane			25.0	27.7		ug/L	111	70 - 130
Bromodichloromethane			25.0	29.9		ug/L	120	70 - 132
Bromoform			25.0	29.4		ug/L	118	60 - 148
Bromomethane			25.0	26.9		ug/L	108	64 - 139
Carbon tetrachloride			25.0	31.0		ug/L	124	60 - 150
Chlorobenzene			25.0	25.7		ug/L	103	70 - 130
Chloroethane			25.0	26.4		ug/L	106	64 - 135
Chloroform			25.0	29.1		ug/L	117	70 - 130
Chloromethane			25.0	27.6		ug/L	110	47 - 140
2-Chlorotoluene			25.0	26.6		ug/L	106	70 - 130
4-Chlorotoluene			25.0	26.8		ug/L	107	70 - 130
cis-1,2-Dichloroethene			25.0	26.9		ug/L	108	70 - 133
cis-1,3-Dichloropropene			25.0	27.6		ug/L	110	70 - 133
Dibromochloromethane			25.0	29.1		ug/L	117	69 - 145
1,2-Dibromo-3-Chloropropane			25.0	31.8		ug/L	127	52 - 140
1,2-Dibromoethane (EDB)			25.0	28.2		ug/L	113	70 - 130
Dibromomethane			25.0	28.3		ug/L	113	70 - 130
1,2-Dichlorobenzene			25.0	26.7		ug/L	107	70 - 130
1,3-Dichlorobenzene			25.0	26.3		ug/L	105	70 - 130
1,4-Dichlorobenzene			25.0	26.4		ug/L	105	70 - 130
Dichlorodifluoromethane			25.0	31.0		ug/L	124	29 - 150
1,1-Dichloroethane			25.0	28.4		ug/L	114	64 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-423180/5

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	
	Added	Result	Qualifier						
1,1,2-Dichloroethane	25.0	30.0		ug/L		120	57 - 138		
1,1,1-Dichloroethene	25.0	27.2		ug/L		109	70 - 130		
1,1,2-Dichloropropane	25.0	27.0		ug/L		108	67 - 130		
1,1,1,2-Tetrachloroethane	25.0	26.8		ug/L		107	70 - 130		
1,1,1,2,2-Pentacloroethane	25.0	26.8		ug/L		107	68 - 141		
1,1-Dichloropropene	25.0	29.6		ug/L		118	70 - 130		
Ethylbenzene	25.0	26.8		ug/L		107	70 - 130		
Hexachlorobutadiene	25.0	27.8		ug/L		111	10 - 150		
Isopropylbenzene	25.0	26.7		ug/L		107	70 - 136		
Methylene Chloride	25.0	26.6		ug/L		107	52 - 130		
Methyl-t-Butyl Ether (MTBE)	25.0	27.0		ug/L		108	63 - 131		
m,p-Xylene	25.0	25.6		ug/L		103	70 - 130		
Naphthalene	25.0	27.2		ug/L		109	60 - 140		
n-Butylbenzene	25.0	27.6		ug/L		110	65 - 150		
N-Propylbenzene	25.0	27.3		ug/L		109	67 - 139		
o-Xylene	25.0	25.3		ug/L		101	70 - 130		
p-Isopropyltoluene	25.0	26.8		ug/L		107	70 - 132		
sec-Butylbenzene	25.0	26.7		ug/L		107	70 - 138		
Styrene	25.0	27.5		ug/L		110	70 - 134		
tert-Butylbenzene	25.0	26.4		ug/L		106	70 - 130		
1,1,1,2-Tetrachloroethane	25.0	29.3		ug/L		117	60 - 141		
1,1,2,2-Tetrachloroethane	25.0	26.7		ug/L		107	63 - 130		
Tetrachloroethene	25.0	26.5		ug/L		106	70 - 130		
Toluene	25.0	26.1		ug/L		104	70 - 130		
trans-1,2-Dichloroethene	25.0	29.0		ug/L		116	70 - 130		
trans-1,3-Dichloropropene	25.0	28.0		ug/L		112	70 - 132		
1,2,3-Trichlorobenzene	25.0	27.6		ug/L		110	60 - 140		
1,2,4-Trichlorobenzene	25.0	27.0		ug/L		108	60 - 140		
1,1,1-Trichloroethane	25.0	29.6		ug/L		118	70 - 130		
1,1,2-Trichloroethane	25.0	28.0		ug/L		112	70 - 130		
Trichloroethene	25.0	27.5		ug/L		110	70 - 130		
Trichlorofluoromethane	25.0	29.3		ug/L		117	60 - 150		
1,2,3-Trichloropropane	25.0	29.3		ug/L		117	63 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.4		ug/L		114	60 - 140		
1,2,4-Trimethylbenzene	25.0	26.5		ug/L		106	70 - 135		
1,3,5-Trimethylbenzene	25.0	27.4		ug/L		110	70 - 136		
Vinyl chloride	25.0	27.1		ug/L		108	59 - 133		

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	105		76 - 132
Toluene-d8 (Surr)	103		80 - 128
1,2-Dichloroethane-d4 (Surr)	113		70 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190169-A-5 MS

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acetone	ND		500	715		ug/L		143	10 - 150
Benzene	ND		500	525		ug/L		105	66 - 130
Bromobenzene	ND		500	538		ug/L		108	70 - 130
Bromochloromethane	ND		500	573		ug/L		115	70 - 130
Bromodichloromethane	ND		500	635		ug/L		127	70 - 138
Bromoform	ND		500	600		ug/L		120	59 - 150
Bromomethane	ND		500	531		ug/L		106	62 - 131
Carbon tetrachloride	ND		500	598		ug/L		120	60 - 150
Chlorobenzene	ND		500	515		ug/L		103	70 - 130
Chloroethane	ND		500	537		ug/L		107	68 - 130
Chloroform	8.4 J		500	589		ug/L		116	70 - 130
Chloromethane	ND		500	542		ug/L		108	39 - 144
2-Chlorotoluene	ND		500	516		ug/L		103	70 - 130
4-Chlorotoluene	ND		500	534		ug/L		107	70 - 130
cis-1,2-Dichloroethene	6.2 J		500	537		ug/L		106	70 - 130
cis-1,3-Dichloropropene	ND		500	575		ug/L		115	70 - 133
Dibromochloromethane	ND		500	602		ug/L		120	70 - 148
1,2-Dibromo-3-Chloropropane	ND		500	592		ug/L		118	48 - 140
1,2-Dibromoethane (EDB)	ND		500	562		ug/L		112	70 - 131
Dibromomethane	ND		500	575		ug/L		115	70 - 130
1,2-Dichlorobenzene	ND		500	533		ug/L		107	70 - 130
1,3-Dichlorobenzene	ND		500	517		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND		500	519		ug/L		104	70 - 130
Dichlorodifluoromethane	ND		500	589		ug/L		118	25 - 142
1,1-Dichloroethane	91		500	657		ug/L		113	65 - 130
1,2-Dichloroethane	6.4 J		500	622		ug/L		123	56 - 146
1,1-Dichloroethene	2100		500	2600 4		ug/L		108	70 - 130
1,2-Dichloropropane	ND		500	562		ug/L		112	69 - 130
1,3-Dichloropropane	ND		500	543		ug/L		109	70 - 130
2,2-Dichloropropane	ND		500	549		ug/L		110	69 - 138
1,1-Dichloropropene	ND		500	572		ug/L		114	64 - 130
Ethylbenzene	ND		500	526		ug/L		105	70 - 130
Hexachlorobutadiene	ND		500	524		ug/L		105	10 - 150
Isopropyl alcohol	ND F1		5000	ND F1		ug/L		0	46 - 142
Isopropylbenzene	ND		500	520		ug/L		104	70 - 132
Methylene Chloride	ND		500	548		ug/L		110	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		500	566		ug/L		113	70 - 130
m,p-Xylene	ND		500	509		ug/L		102	70 - 133
Naphthalene	ND		500	520		ug/L		104	60 - 140
n-Butylbenzene	ND		500	519		ug/L		104	61 - 149
N-Propylbenzene	ND		500	522		ug/L		104	66 - 135
o-Xylene	ND		500	497		ug/L		99	70 - 133
p-Isopropyltoluene	ND		500	513		ug/L		103	70 - 130
sec-Butylbenzene	ND		500	510		ug/L		102	67 - 134
Styrene	ND		500	557		ug/L		111	29 - 150
tert-Butylbenzene	ND		500	511		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	ND		500	597		ug/L		119	60 - 149
1,1,2,2-Tetrachloroethane	ND		500	530		ug/L		106	63 - 130

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190169-A-5 MS

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Tetrachloroethene	37		500	546		ug/L		102	70 - 137
Toluene	ND		500	514		ug/L		103	70 - 130
trans-1,2-Dichloroethene	ND		500	568		ug/L		114	70 - 130
trans-1,3-Dichloropropene	ND		500	588		ug/L		118	70 - 138
1,2,3-Trichlorobenzene	ND		500	543		ug/L		109	60 - 140
1,2,4-Trichlorobenzene	ND		500	542		ug/L		108	60 - 140
1,1,1-Trichloroethane	ND		500	573		ug/L		115	70 - 130
1,1,2-Trichloroethane	8.3	J	500	574		ug/L		113	70 - 130
Trichloroethene	1300		500	1830		ug/L		101	70 - 130
Trichlorofluoromethane	ND		500	545		ug/L		109	60 - 150
1,2,3-Trichloropropane	ND		500	553		ug/L		111	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	547		ug/L		109	60 - 140
ne									
1,2,4-Trimethylbenzene	ND		500	521		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	ND		500	525		ug/L		105	70 - 130
Vinyl chloride	ND		500	473		ug/L		95	50 - 137
Surrogate		MS	MS						
		%Recovery	Qualifier		Limits				
4-Bromofluorobenzene (Surr)	103			80 - 120					
Dibromofluoromethane (Surr)	108			76 - 132					
Toluene-d8 (Surr)	102			80 - 128					
1,2-Dichloroethane-d4 (Surr)	115			70 - 130					

Lab Sample ID: 440-190169-A-5 MSD

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	ND		500	737		ug/L		147	10 - 150	3	35
Benzene	ND		500	520		ug/L		104	66 - 130	1	20
Bromobenzene	ND		500	548		ug/L		110	70 - 130	2	20
Bromochloromethane	ND		500	556		ug/L		111	70 - 130	3	25
Bromodichloromethane	ND		500	609		ug/L		122	70 - 138	4	20
Bromoform	ND		500	565		ug/L		113	59 - 150	6	25
Bromomethane	ND		500	517		ug/L		103	62 - 131	3	25
Carbon tetrachloride	ND		500	586		ug/L		117	60 - 150	2	25
Chlorobenzene	ND		500	512		ug/L		102	70 - 130	1	20
Chloroethane	ND		500	526		ug/L		105	68 - 130	2	25
Chloroform	8.4	J	500	571		ug/L		113	70 - 130	3	20
Chloromethane	ND		500	534		ug/L		107	39 - 144	2	25
2-Chlorotoluene	ND		500	525		ug/L		105	70 - 130	2	20
4-Chlorotoluene	ND		500	537		ug/L		107	70 - 130	1	20
cis-1,2-Dichloroethene	6.2	J	500	532		ug/L		105	70 - 130	1	20
cis-1,3-Dichloropropene	ND		500	567		ug/L		113	70 - 133	1	20
Dibromochloromethane	ND		500	596		ug/L		119	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		500	529		ug/L		106	48 - 140	11	30
1,2-Dibromoethane (EDB)	ND		500	526		ug/L		105	70 - 131	6	25
Dibromomethane	ND		500	542		ug/L		108	70 - 130	6	25

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190169-A-5 MSD

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,2-Dichlorobenzene	ND		500	526		ug/L		105	70 - 130	1	20
1,3-Dichlorobenzene	ND		500	523		ug/L		105	70 - 130	1	20
1,4-Dichlorobenzene	ND		500	522		ug/L		104	70 - 130	1	20
Dichlorodifluoromethane	ND		500	570		ug/L		114	25 - 142	3	30
1,1-Dichloroethane	91		500	645		ug/L		111	65 - 130	2	20
1,2-Dichloroethane	6.4 J		500	600		ug/L		119	56 - 146	4	20
1,1-Dichloroethylene	2100		500	2610 4		ug/L		111	70 - 130	1	20
1,2-Dichloropropane	ND		500	543		ug/L		109	69 - 130	4	20
1,3-Dichloropropane	ND		500	523		ug/L		105	70 - 130	4	25
2,2-Dichloropropane	ND		500	530		ug/L		106	69 - 138	4	25
1,1-Dichloropropene	ND		500	561		ug/L		112	64 - 130	2	20
Ethylbenzene	ND		500	520		ug/L		104	70 - 130	1	20
Hexachlorobutadiene	ND		500	530		ug/L		106	10 - 150	1	20
Isopropyl alcohol	ND F1		5000	4050 J		ug/L		81	46 - 142	NC	40
Isopropylbenzene	ND		500	516		ug/L		103	70 - 132	1	20
Methylene Chloride	ND		500	539		ug/L		108	52 - 130	2	20
Methyl-t-Butyl Ether (MTBE)	ND		500	566		ug/L		113	70 - 130	0	25
m,p-Xylene	ND		500	501		ug/L		100	70 - 133	2	25
Naphthalene	ND		500	491		ug/L		98	60 - 140	6	30
n-Butylbenzene	ND		500	524		ug/L		105	61 - 149	1	20
N-Propylbenzene	ND		500	535		ug/L		107	66 - 135	2	20
o-Xylene	ND		500	498		ug/L		100	70 - 133	0	20
p-Isopropyltoluene	ND		500	521		ug/L		104	70 - 130	1	20
sec-Butylbenzene	ND		500	521		ug/L		104	67 - 134	2	20
Styrene	ND		500	538		ug/L		108	29 - 150	3	35
tert-Butylbenzene	ND		500	523		ug/L		105	70 - 130	2	20
1,1,1,2-Tetrachloroethane	ND		500	585		ug/L		117	60 - 149	2	20
1,1,2,2-Tetrachloroethane	ND		500	503		ug/L		101	63 - 130	5	30
Tetrachloroethylene	37		500	552		ug/L		103	70 - 137	1	20
Toluene	ND		500	511		ug/L		102	70 - 130	1	20
trans-1,2-Dichloroethylene	ND		500	564		ug/L		113	70 - 130	1	20
trans-1,3-Dichloropropene	ND		500	569		ug/L		114	70 - 138	3	25
1,2,3-Trichlorobenzene	ND		500	540		ug/L		108	60 - 140	1	20
1,2,4-Trichlorobenzene	ND		500	539		ug/L		108	60 - 140	1	20
1,1,1-Trichloroethane	ND		500	571		ug/L		114	70 - 130	0	20
1,1,2-Trichloroethane	8.3 J		500	553		ug/L		109	70 - 130	4	25
Trichloroethylene	1300		500	1790		ug/L		93	70 - 130	2	20
Trichlorofluoromethane	ND		500	539		ug/L		108	60 - 150	1	25
1,2,3-Trichloropropene	ND		500	518		ug/L		104	60 - 130	7	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	538		ug/L		108	60 - 140	2	20
1,2,4-Trimethylbenzene	ND		500	521		ug/L		104	70 - 130	0	25
1,3,5-Trimethylbenzene	ND		500	530		ug/L		106	70 - 130	1	20
Vinyl chloride	ND		500	471		ug/L		94	50 - 137	1	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		80 - 120
Dibromofluoromethane (Surr)	106		76 - 132

TestAmerica Irvine

QC Sample Results

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190169-A-5 MSD

Matrix: Water

Analysis Batch: 423180

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 128
1,2-Dichloroethane-d4 (Surr)	111		70 - 130

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-423108/1-A

Matrix: Water

Analysis Batch: 423423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 423108

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.51	0.10	ug/L	D	08/14/17 11:17	08/15/17 17:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	65		36 - 90	08/14/17 11:17	08/15/17 17:41	1

Lab Sample ID: LCS 440-423108/3-A

Matrix: Water

Analysis Batch: 423423

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 423108

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limts
1,4-Dioxane	2.01	1.37		ug/L	D	68	36 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	67		36 - 90

Lab Sample ID: LCSD 440-423108/4-A

Matrix: Water

Analysis Batch: 423423

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 423108

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
1,4-Dioxane	1.98	1.32		ug/L	D	67	36 - 120	4

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8 (Surr)	65		36 - 90

QC Association Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

GC/MS VOA

Analysis Batch: 423019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190083-1	OC_GW_OW-9_20170810	Total/NA	Water	8260B	
440-190083-1 - DL	OC_GW_OW-9_20170810	Total/NA	Water	8260B	
440-190083-2	OC_GW_OW-11_20170810	Total/NA	Water	8260B	
440-190083-3	OC_GW_OW-12_20170811	Total/NA	Water	8260B	
440-190083-3 - DL	OC_GW_OW-12_20170811	Total/NA	Water	8260B	
440-190083-6	OC_GW_TB_20170810	Total/NA	Water	8260B	
MB 440-423019/4	Method Blank	Total/NA	Water	8260B	
LCS 440-423019/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-423019/7	Lab Control Sample	Total/NA	Water	8260B	
440-190083-2 MS	OC_GW_OW-11_20170810	Total/NA	Water	8260B	
440-190083-2 MSD	OC_GW_OW-11_20170810	Total/NA	Water	8260B	

Analysis Batch: 423180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190083-4	OC_GW_OW-9K_20170810	Total/NA	Water	8260B	
440-190083-4 - DL	OC_GW_OW-9K_20170810	Total/NA	Water	8260B	
440-190083-5	OC_GW_OW-11N_20170810	Total/NA	Water	8260B	
MB 440-423180/4	Method Blank	Total/NA	Water	8260B	
LCS 440-423180/18	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-423180/5	Lab Control Sample	Total/NA	Water	8260B	
440-190169-A-5 MS	Matrix Spike	Total/NA	Water	8260B	
440-190169-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 423108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190083-1	OC_GW_OW-9_20170810	Total/NA	Water	3520C	
440-190083-2	OC_GW_OW-11_20170810	Total/NA	Water	3520C	
440-190083-3	OC_GW_OW-12_20170811	Total/NA	Water	3520C	
440-190083-4	OC_GW_OW-9K_20170810	Total/NA	Water	3520C	
MB 440-423108/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-423108/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-423108/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 423423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190083-1	OC_GW_OW-9_20170810	Total/NA	Water	8270C SIM	423108
440-190083-2	OC_GW_OW-11_20170810	Total/NA	Water	8270C SIM	423108
440-190083-3	OC_GW_OW-12_20170811	Total/NA	Water	8270C SIM	423108
440-190083-4	OC_GW_OW-9K_20170810	Total/NA	Water	8270C SIM	423108
MB 440-423108/1-A	Method Blank	Total/NA	Water	8270C SIM	423108
LCS 440-423108/3-A	Lab Control Sample	Total/NA	Water	8270C SIM	423108
LCSD 440-423108/4-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	423108

Definitions/Glossary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: de maximis, inc.

Project/Site: Omega Chemical -GW/Semi Annual

TestAmerica Job ID: 440-190083-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18 *
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

TestAmerica Irvine
 17461 Derian Ave
 Suite 100
 Irvine, CA 92614
 phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: Trent Henderson		Site Contact: Khalid Azhar		Date: 8/10/2017		COC No: ____ of ____ COCs				
De Maximis - Jaime Dinello 1322 Scott St, Suite 104 San Diego, CA 92106 (562) 756-8149		Tel/Fax: 949 453 1045/949 453 1047		Lab Contact: Danielle Roberts		Carrier:		Sampler:				
		Analysis Turnaround Time										
		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:				
		TAT if different from Below <u>STD</u>						Walk-in Client: <input type="checkbox"/>				
		<input type="checkbox"/> 2 weeks						Lab Sampling: <input type="checkbox"/>				
		<input type="checkbox"/> 1 week										
		<input type="checkbox"/> 2 days						Job / SDG No.: _____				
		<input type="checkbox"/> 1 day										
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filled Sample (Y/N)	EPA 8260B - VOCs + Fugitives	EPA 8260C - 14 Dioxin	Report MS / MSD (Y/N)	Report MS / MSD (Y/N)	Sample Specific Notes:
OC_GW_DW-9_20170810		8/10/2017	0812	Grab	GW	5	x	x				
OC_GW_DW-11_20170810		8/10/2017	1200	Grab	GW	5	x	x				
OC_GW_DW-12_20170810		8/10/2017	0645	Grab	GW	5	x	x	②			
OC_GW_DW-9K_20170810		8/10/2017	0815	Grab	GW	5	x	x				
OC_GW_DW-11N_20170810		8/10/2017	1255	Grab	H2O	3	x					
OC_GW_TB_20170810		8/10/2017	0700	Grab	H2O	2	x					
 440-190083 Chain of Custody												

Preservation Used: 1= Ice; 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:

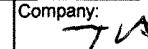
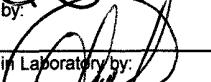
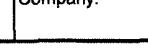
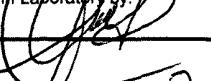
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Cor'd: _____ Therm ID No.: _____		
Relinquished by: 	Company: 	Date/Time:  110	Received by: 	Company: 	Date/Time:  110
Relinquished by: 	Company: 	Date/Time:  112	Received by: 	Company: 	Date/Time: 
Relinquished by: 	Company: 	Date/Time: 	Received in Laboratory by: 	Company:  TA-1	Date/Time:  1810

2.1/2.8 112-66

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-190083-1

Login Number: 190083

List Source: TestAmerica Irvine

List Number: 1

Creator: Soderblom, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-190535-1

Client Project/Site: Omega Chemical - ISCO/Composite & Grab

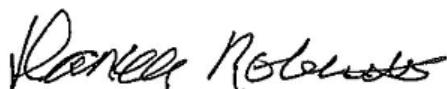
For:

Jacob & Hefner Associates P.C.

15375 Barranca Parkway, J-101

Irvine, California 92618

Attn: Trent Henderson



Authorized for release by:

8/25/2017 1:39:04 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

LINKS

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Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-190535-1	Water Composite	Water	08/18/17 08:00	08/18/17 11:15
440-190535-2	Water Grab	Water	08/18/17 08:10	08/18/17 11:15

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TestAmerica Irvine

Case Narrative

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Job ID: 440-190535-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-190535-1

Comments

No additional comments.

Receipt

The samples were received on 8/18/2017 11:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-424710 and analytical batch 440-425435. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 440-424710 and analytical batch 440-425435 recovered outside control limits for benzidine. Per the EPA method, this compound is subject to oxidative loss during sample preparation.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-424330 and analytical batch 440-424557. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Composite

Lab Sample ID: 440-190535-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	8.8		2.5	mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	20		20	mg/L	1		SM 5220D	Total/NA

Client Sample ID: Water Grab

Lab Sample ID: 440-190535-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Total Volatile Organic Compounds	160		150	ug/L	1		8260B	Total/NA
1,4-Dioxane	35		0.49	ug/L	1		8270C SIM	Total/NA
pH	8.7	HF	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Composite

Date Collected: 08/18/17 08:00

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	8.8		2.5	mg/L			08/23/17 11:19	1
Chemical Oxygen Demand	20		20	mg/L			08/21/17 15:00	1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 16:11	1
Acrolein	ND		5.0	ug/L			08/21/17 11:47	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
Acrylonitrile	ND		2.0	ug/L			08/21/17 11:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/21/17 16:11	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/21/17 11:47	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,1-Dichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,1-Dichloroethene	ND		1.0	ug/L			08/21/17 16:11	1
Total Volatile Organic Compounds	ND		150	ug/L			08/21/17 11:47	1
1,1-Dichloropropene	ND		1.0	ug/L			08/21/17 16:11	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/21/17 16:11	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,3-Dichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
1,4-Dichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
2,2-Dichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
2-Chlorotoluene	ND		1.0	ug/L			08/21/17 16:11	1
4-Chlorotoluene	ND		1.0	ug/L			08/21/17 16:11	1
Acetone	ND		10	ug/L			08/21/17 16:11	1
Benzene	ND		0.50	ug/L			08/21/17 16:11	1
Bromobenzene	ND		1.0	ug/L			08/21/17 16:11	1
Bromochloromethane	ND		1.0	ug/L			08/21/17 16:11	1
Bromodichloromethane	ND		1.0	ug/L			08/21/17 16:11	1
Bromoform	ND		1.0	ug/L			08/21/17 16:11	1
Bromomethane	ND		1.0	ug/L			08/21/17 16:11	1
Carbon tetrachloride	ND		0.50	ug/L			08/21/17 16:11	1
Chlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
Chloroethane	ND		1.0	ug/L			08/21/17 16:11	1
Chloroform	ND		1.0	ug/L			08/21/17 16:11	1
Chloromethane	ND		1.0	ug/L			08/21/17 16:11	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	ug/L		08/21/17 16:11		1
cis-1,3-Dichloropropene	ND		0.50	ug/L		08/21/17 16:11		1
Dibromochloromethane	ND		1.0	ug/L		08/21/17 16:11		1
Dibromomethane	ND		1.0	ug/L		08/21/17 16:11		1
Dichlorodifluoromethane	ND		1.0	ug/L		08/21/17 16:11		1
Ethylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
Hexachlorobutadiene	ND		1.0	ug/L		08/21/17 16:11		1
Isopropylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
m,p-Xylene	ND		1.0	ug/L		08/21/17 16:11		1
Methylene Chloride	ND		5.0	ug/L		08/21/17 16:11		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L		08/21/17 16:11		1
Naphthalene	ND		1.0	ug/L		08/21/17 16:11		1
n-Butylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
N-Propylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
o-Xylene	ND		1.0	ug/L		08/21/17 16:11		1
p-Isopropyltoluene	ND		1.0	ug/L		08/21/17 16:11		1
sec-Butylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
Styrene	ND		1.0	ug/L		08/21/17 16:11		1
tert-Butylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
Tetrachloroethene	ND		1.0	ug/L		08/21/17 16:11		1
Toluene	ND		1.0	ug/L		08/21/17 16:11		1
Total Volatile Organic Compounds	160		150	ug/L		08/21/17 16:11		1
trans-1,2-Dichloroethene	ND		1.0	ug/L		08/21/17 16:11		1
trans-1,3-Dichloropropene	ND		0.50	ug/L		08/21/17 16:11		1
Trichloroethene	ND		1.0	ug/L		08/21/17 16:11		1
Trichlorofluoromethane	ND		1.0	ug/L		08/21/17 16:11		1
Vinyl chloride	ND		0.50	ug/L		08/21/17 16:11		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		08/21/17 11:47	1
Dibromofluoromethane (Surr)	105		76 - 132		08/21/17 11:47	1
Toluene-d8 (Surr)	107		80 - 128		08/21/17 11:47	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		08/21/17 11:47	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		08/21/17 16:11	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/21/17 16:11	1
Dibromofluoromethane (Surr)	108		76 - 132		08/21/17 16:11	1
Toluene-d8 (Surr)	88		80 - 128		08/21/17 16:11	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND	F1	250	ug/L		08/22/17 17:41		1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		08/22/17 17:41	1		
4-Bromofluorobenzene (Surr)	102		80 - 120		08/22/17 17:41	1		
Dibromofluoromethane (Surr)	108		76 - 132		08/22/17 17:41	1		
Toluene-d8 (Surr)	111		80 - 128		08/22/17 17:41	1		

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	35		0.49	ug/L		08/19/17 07:53	08/21/17 19:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	76		36 - 90			08/19/17 07:53	08/21/17 19:09	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,2-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,3-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,4-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4,5-Trichlorophenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4,6-Trichlorophenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dichlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dimethylphenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dinitrophenol	ND		41	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,6-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Chloronaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Chlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Methylnaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Methylphenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Nitroaniline	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Nitrophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
3,3'-Dichlorobenzidine	ND		41	ug/L		08/22/17 09:06	08/24/17 23:14	1
3-Methylphenol + 4-Methylphenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
3-Nitroaniline	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4,6-Dinitro-2-methylphenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Bromophenyl phenyl ether	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Chloro-3-methylphenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Chloroaniline	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Nitroaniline	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Nitrophenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
Acenaphthene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Acenaphthylene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Aniline	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Anthracene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzidine	ND *		41	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[a]anthracene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[a]pyrene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[b]fluoranthene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[g,h,i]perylene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[k]fluoranthene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzoic acid	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzyl alcohol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
bis (2-chloroisopropyl) ether	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Bis(2-chloroethoxy)methane	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Bis(2-ethylhexyl) phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Butyl benzyl phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Chrysene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Dibenz(a,h)anthracene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Dibenzofuran	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Diethyl phthalate	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Dimethyl phthalate	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Di-n-butyl phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Di-n-octyl phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Fluoranthene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Fluorene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachlorobenzene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachlorobutadiene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachlorocyclopentadiene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachloroethane	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Indeno[1,2,3-cd]pyrene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Isophorone	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Naphthalene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Nitrobenzene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
N-Nitrosodimethylamine	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
N-Nitrosodi-n-propylamine	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
N-Nitrosodiphenylamine	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Pentachlorophenol	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Phenanthere	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Phenol	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Pyrene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		40 - 120	08/22/17 09:06	08/24/17 23:14	1
2-Fluorobiphenyl	72		50 - 120	08/22/17 09:06	08/24/17 23:14	1
2-Fluorophenol (Surr)	64		30 - 120	08/22/17 09:06	08/24/17 23:14	1
Nitrobenzene-d5 (Surr)	72		45 - 120	08/22/17 09:06	08/24/17 23:14	1
Phenol-d6 (Surr)	67		35 - 120	08/22/17 09:06	08/24/17 23:14	1
Terphenyl-d14 (Surr)	76		10 - 150	08/22/17 09:06	08/24/17 23:14	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7	HF	0.1	SU		08/21/17 14:46		1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	F1 HF	0.050	mg/L		08/21/17 12:46	08/21/17 17:22	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (70-130)	BFB (80-120)	DBFM (76-132)	TOL (80-128)
440-190394-A-1 MS	Matrix Spike	93	98	98	97
440-190394-A-1 MSD	Matrix Spike Duplicate	94	101	98	97
440-190411-C-2 MS	Matrix Spike	117	99	113	102
440-190411-C-2 MSD	Matrix Spike Duplicate	119	101	111	98
440-190535-2 - RA	Water Grab	104	102	108	111
440-190535-2	Water Grab	102	98	105	107
440-190535-2	Water Grab	109	94	108	88
440-190535-2 MS	Water Grab	99	100	106	106
440-190535-2 MSD	Water Grab	98	98	106	107
LCS 440-424347/6	Lab Control Sample	97	101	106	109
LCS 440-424411/5	Lab Control Sample	96	102	102	98
LCS 440-424413/5	Lab Control Sample	103	97	101	90
MB 440-424347/4	Method Blank	98	102	105	110
MB 440-424411/4	Method Blank	99	100	99	107
MB 440-424413/4	Method Blank	108	94	106	86

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (40-120)	FBP (50-120)	2FP (30-120)	NBZ (45-120)	PHL (35-120)	TPH (10-150)
440-190535-2	Water Grab	74	72	64	72	67	76
LCS 440-424710/2-A	Lab Control Sample	80	75	64	73	71	77
LCSD 440-424710/3-A	Lab Control Sample Dup	82	78	64	76	70	79
MB 440-424710/1-A	Method Blank	84	83	76	80	77	93

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d6 (Surr)

TPH = Terphenyl-d14 (Surr)

Method: 8270C SIM - 1,4 Dioxane by SIM

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		14DD8 (36-90)					
440-190535-2	Water Grab	76					
LCS 440-424330/2-A	Lab Control Sample	73					
LCSD 440-424330/3-A	Lab Control Sample Dup	75					

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Surrogate Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)				
Lab Sample ID	Client Sample ID	14DD8 (36-90)	_____	_____	_____	_____
MB 440-424330/1-A	Method Blank	73	_____	_____	_____	_____

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Composite

Date Collected: 08/18/17 08:00

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	400 mL	1000 mL	425034	08/23/17 11:19	EC1	TAL IRV
Total/NA	Analysis	SM 5220D		1	2.5 mL	2.5 mL	424545	08/21/17 15:00	KYP	TAL IRV

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	424411	08/21/17 11:47	HR	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	424413	08/21/17 16:11	MF	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	424347	08/22/17 17:41	AA	TAL IRV
Total/NA	Prep	3520C			975 mL	2.0 mL	424710	08/22/17 09:06	BMN	TAL IRV
Total/NA	Analysis	8270C		1			425435	08/24/17 23:14	DF	TAL IRV
Total/NA	Prep	3520C			1025 mL	1.0 mL	424330	08/19/17 07:53	JS1	TAL IRV
Total/NA	Analysis	8270C SIM		1			424557	08/21/17 19:09	HN	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			424501	08/21/17 14:46	ST	TAL IRV
Dissolved	Prep	SM 4500 S2 B			7.5 mL	7.5 mL	424512	08/21/17 12:46	HTL	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	424594	08/21/17 17:22	HTL	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-424347/4

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Isopropyl alcohol	ND		250	ug/L			08/22/17 16:17	1
Surrogate								
1,2-Dichloroethane-d4 (Surr)	98		70 - 130			Prepared	08/22/17 16:17	1
4-Bromofluorobenzene (Surr)	102		80 - 120				08/22/17 16:17	1
Dibromofluoromethane (Surr)	105		76 - 132				08/22/17 16:17	1
Toluene-d8 (Surr)	110		80 - 128				08/22/17 16:17	1

Lab Sample ID: LCS 440-424347/6

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	%Rec. Limits
	%Recovery	Qualifier							
Isopropyl alcohol	ND		250	225	J	ug/L		90	49 - 142
Surrogate									
1,2-Dichloroethane-d4 (Surr)	97		70 - 130						
4-Bromofluorobenzene (Surr)	101		80 - 120						
Dibromofluoromethane (Surr)	106		76 - 132						
Toluene-d8 (Surr)	109		80 - 128						

Lab Sample ID: 440-190535-2 MS

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Water Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	%Rec. Limits
	%Recovery	Qualifier							
Isopropyl alcohol	ND	F1	250	357	F1	ug/L		143	46 - 142
Surrogate									
1,2-Dichloroethane-d4 (Surr)	99		70 - 130						
4-Bromofluorobenzene (Surr)	100		80 - 120						
Dibromofluoromethane (Surr)	106		76 - 132						
Toluene-d8 (Surr)	106		80 - 128						

Lab Sample ID: 440-190535-2 MSD

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Water Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	%Rec. Limits	RPD	Limit
	%Recovery	Qualifier									
Isopropyl alcohol	ND	F1	250	335		ug/L		134	46 - 142	6	40
Surrogate											
1,2-Dichloroethane-d4 (Surr)	98		70 - 130								
4-Bromofluorobenzene (Surr)	98		80 - 120								
Dibromofluoromethane (Surr)	106		76 - 132								
Toluene-d8 (Surr)	107		80 - 128								

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424411/4

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		5.0	ug/L			08/21/17 08:32	1
Acrylonitrile	ND		2.0	ug/L			08/21/17 08:32	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/21/17 08:32	1
Total Volatile Organic Compounds	ND		150	ug/L			08/21/17 08:32	1

Surrogate	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		08/21/17 08:32	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/21/17 08:32	1
Dibromofluoromethane (Surr)	99		76 - 132		08/21/17 08:32	1
Toluene-d8 (Surr)	107		80 - 128		08/21/17 08:32	1

Lab Sample ID: LCS 440-424411/5

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Acrolein		25.0	22.4		ug/L		90	10 - 145
Acrylonitrile		250	234		ug/L		94	48 - 140
2-Chloroethyl vinyl ether		25.0	24.1		ug/L		97	37 - 150

Surrogate	%Recovery	LCS Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	96		70 - 130					
4-Bromofluorobenzene (Surr)	102		80 - 120					
Dibromofluoromethane (Surr)	102		76 - 132					
Toluene-d8 (Surr)	98		80 - 128					

Lab Sample ID: 440-190394-A-1 MS

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
Acrolein	ND		25.0	22.0		ug/L		88	10 - 147
Acrylonitrile	ND		250	195		ug/L		78	38 - 144
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		4	10 - 140

Surrogate	%Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	93		70 - 130						
4-Bromofluorobenzene (Surr)	98		80 - 120						
Dibromofluoromethane (Surr)	98		76 - 132						
Toluene-d8 (Surr)	97		80 - 128						

Lab Sample ID: 440-190394-A-1 MSD

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD
								Limits	Limit
Acrolein	ND		25.0	25.3		ug/L		101	10 - 147

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190394-A-1 MSD

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acrylonitrile	ND		250	208		ug/L	83	38 - 144	6	40	
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L	0	10 - 140	NC	35	
Surrogate											
1,2-Dichloroethane-d4 (Surr)	94			70 - 130							
4-Bromofluorobenzene (Surr)	101			80 - 120							
Dibromofluoromethane (Surr)	98			76 - 132							
Toluene-d8 (Surr)	97			80 - 128							

Lab Sample ID: MB 440-424413/4

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/21/17 11:16	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1-Dichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1-Dichloroethene	ND		1.0	ug/L			08/21/17 11:16	1
1,1-Dichloropropene	ND		1.0	ug/L			08/21/17 11:16	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/21/17 11:16	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,3-Dichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
1,4-Dichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
2,2-Dichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
2-Chlorotoluene	ND		1.0	ug/L			08/21/17 11:16	1
4-Chlorotoluene	ND		1.0	ug/L			08/21/17 11:16	1
Acetone	ND		10	ug/L			08/21/17 11:16	1
Benzene	ND		0.50	ug/L			08/21/17 11:16	1
Bromobenzene	ND		1.0	ug/L			08/21/17 11:16	1
Bromochloromethane	ND		1.0	ug/L			08/21/17 11:16	1
Bromodichloromethane	ND		1.0	ug/L			08/21/17 11:16	1
Bromoform	ND		1.0	ug/L			08/21/17 11:16	1
Bromomethane	ND		1.0	ug/L			08/21/17 11:16	1
Carbon tetrachloride	ND		0.50	ug/L			08/21/17 11:16	1
Chlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
Chloroethane	ND		1.0	ug/L			08/21/17 11:16	1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424413/4

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND				1.0	ug/L		08/21/17 11:16		1
Chloromethane	ND				1.0	ug/L		08/21/17 11:16		1
cis-1,2-Dichloroethene	ND				1.0	ug/L		08/21/17 11:16		1
cis-1,3-Dichloropropene	ND				0.50	ug/L		08/21/17 11:16		1
Dibromochloromethane	ND				1.0	ug/L		08/21/17 11:16		1
Dibromomethane	ND				1.0	ug/L		08/21/17 11:16		1
Dichlorodifluoromethane	ND				1.0	ug/L		08/21/17 11:16		1
Ethylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
Hexachlorobutadiene	ND				1.0	ug/L		08/21/17 11:16		1
Isopropylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
m,p-Xylene	ND				1.0	ug/L		08/21/17 11:16		1
Methylene Chloride	ND				5.0	ug/L		08/21/17 11:16		1
Methyl-t-Butyl Ether (MTBE)	ND				1.0	ug/L		08/21/17 11:16		1
Naphthalene	ND				1.0	ug/L		08/21/17 11:16		1
n-Butylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
N-Propylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
o-Xylene	ND				1.0	ug/L		08/21/17 11:16		1
p-Isopropyltoluene	ND				1.0	ug/L		08/21/17 11:16		1
sec-Butylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
Styrene	ND				1.0	ug/L		08/21/17 11:16		1
tert-Butylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
Tetrachloroethene	ND				1.0	ug/L		08/21/17 11:16		1
Toluene	ND				1.0	ug/L		08/21/17 11:16		1
Total Volatile Organic Compounds	ND				150	ug/L		08/21/17 11:16		1
trans-1,2-Dichloroethene	ND				1.0	ug/L		08/21/17 11:16		1
trans-1,3-Dichloropropene	ND				0.50	ug/L		08/21/17 11:16		1
Trichloroethene	ND				1.0	ug/L		08/21/17 11:16		1
Trichlorofluoromethane	ND				1.0	ug/L		08/21/17 11:16		1
Vinyl chloride	ND				0.50	ug/L		08/21/17 11:16		1

Surrogate	MB	MB	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		108		70 - 130			08/21/17 11:16	1
4-Bromofluorobenzene (Surr)	94		94		80 - 120			08/21/17 11:16	1
Dibromofluoromethane (Surr)	106		106		76 - 132			08/21/17 11:16	1
Toluene-d8 (Surr)	86		86		80 - 128			08/21/17 11:16	1

Lab Sample ID: LCS 440-424413/5

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added									
1,1,1,2-Tetrachloroethane	25.0		27.4			ug/L		110	60 - 141	
1,1,1-Trichloroethane	25.0		27.1			ug/L		108	70 - 130	
1,1,2,2-Tetrachloroethane	25.0		22.1			ug/L		88	63 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0		24.1			ug/L		96	60 - 140	
1,1,2-Trichloroethane	25.0		25.5			ug/L		102	70 - 130	
1,1-Dichloroethane	25.0		23.8			ug/L		95	64 - 130	

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QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-424413/5

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1-Dichloroethene	25.0	24.0		ug/L		96	70 - 130	
1,1-Dichloropropene	25.0	26.6		ug/L		106	70 - 130	
1,2,3-Trichlorobenzene	25.0	27.0		ug/L		108	60 - 140	
1,2,3-Trichloropropane	25.0	24.4		ug/L		98	63 - 130	
1,2,4-Trichlorobenzene	25.0	27.0		ug/L		108	60 - 140	
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 135	
1,2-Dibromo-3-Chloropropane	25.0	23.8		ug/L		95	52 - 140	
1,2-Dibromoethane (EDB)	25.0	25.4		ug/L		102	70 - 130	
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	
1,2-Dichloroethane	25.0	27.3		ug/L		109	57 - 138	
1,2-Dichloropropane	25.0	22.7		ug/L		91	67 - 130	
1,3,5-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 136	
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	70 - 130	
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	
2,2-Dichloropropane	25.0	26.1		ug/L		104	68 - 141	
2-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130	
4-Chlorotoluene	25.0	26.8		ug/L		107	70 - 130	
Acetone	25.0	23.3		ug/L		93	10 - 150	
Benzene	25.0	23.8		ug/L		95	68 - 130	
Bromobenzene	25.0	25.5		ug/L		102	70 - 130	
Bromochloromethane	25.0	26.0		ug/L		104	70 - 130	
Bromodichloromethane	25.0	27.6		ug/L		110	70 - 132	
Bromoform	25.0	29.8		ug/L		119	60 - 148	
Bromomethane	25.0	27.3		ug/L		109	64 - 139	
Carbon tetrachloride	25.0	27.5		ug/L		110	60 - 150	
Chlorobenzene	25.0	24.5		ug/L		98	70 - 130	
Chloroethane	25.0	29.0		ug/L		116	64 - 135	
Chloroform	25.0	24.9		ug/L		100	70 - 130	
Chloromethane	25.0	20.0		ug/L		80	47 - 140	
cis-1,2-Dichloroethene	25.0	26.2		ug/L		105	70 - 133	
cis-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 133	
Dibromochloromethane	25.0	27.2		ug/L		109	69 - 145	
Dibromomethane	25.0	25.8		ug/L		103	70 - 130	
Dichlorodifluoromethane	25.0	22.6		ug/L		90	29 - 150	
Ethylbenzene	25.0	27.1		ug/L		108	70 - 130	
Hexachlorobutadiene	25.0	25.5		ug/L		102	10 - 150	
Isopropylbenzene	25.0	27.1		ug/L		108	70 - 136	
m,p-Xylene	25.0	27.0		ug/L		108	70 - 130	
Methylene Chloride	25.0	23.5		ug/L		94	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	28.2		ug/L		113	63 - 131	
Naphthalene	25.0	25.1		ug/L		100	60 - 140	
n-Butylbenzene	25.0	24.7		ug/L		99	65 - 150	
N-Propylbenzene	25.0	24.2		ug/L		97	67 - 139	
o-Xylene	25.0	28.4		ug/L		114	70 - 130	
p-Isopropyltoluene	25.0	26.8		ug/L		107	70 - 132	
sec-Butylbenzene	25.0	23.8		ug/L		95	70 - 138	
Styrene	25.0	27.7		ug/L		111	70 - 134	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-424413/5

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
tert-Butylbenzene	25.0	24.7		ug/L	99	70 - 130	
Tetrachloroethene	25.0	26.2		ug/L	105	70 - 130	
Toluene	25.0	26.3		ug/L	105	70 - 130	
trans-1,2-Dichloroethene	25.0	25.4		ug/L	101	70 - 130	
trans-1,3-Dichloropropene	25.0	27.8		ug/L	111	70 - 132	
Trichloroethene	25.0	25.1		ug/L	100	70 - 130	
Trichlorofluoromethane	25.0	29.0		ug/L	116	60 - 150	
Vinyl chloride	25.0	25.3		ug/L	101	59 - 133	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	101		76 - 132
Toluene-d8 (Surr)	90		80 - 128

Lab Sample ID: 440-190411-C-2 MS

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		25.0	28.7		ug/L		115	60 - 149
1,1,1-Trichloroethane	ND		25.0	30.1		ug/L		120	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	23.7		ug/L		95	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	25.6		ug/L		103	60 - 140
1,1,2-Trichloroethane	ND		25.0	25.2		ug/L		101	70 - 130
1,1-Dichloroethane	ND		25.0	26.1		ug/L		104	65 - 130
1,1-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
1,1-Dichloropropene	ND		25.0	28.9		ug/L		116	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	31.1		ug/L		124	60 - 140
1,2,3-Trichloropropane	ND		25.0	27.4		ug/L		109	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	30.7		ug/L		123	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	27.5		ug/L		110	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	26.7		ug/L		107	70 - 131
1,2-Dichlorobenzene	ND		25.0	27.2		ug/L		109	70 - 130
1,2-Dichloroethane	21		25.0	48.4		ug/L		109	56 - 146
1,2-Dichloropropane	ND		25.0	24.8		ug/L		99	69 - 130
1,3,5-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130
1,3-Dichlorobenzene	ND		25.0	27.2		ug/L		109	70 - 130
1,3-Dichloropropane	ND		25.0	25.1		ug/L		101	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.7		ug/L		107	70 - 130
2,2-Dichloropropane	ND		25.0	28.5		ug/L		114	69 - 138
2-Chlorotoluene	ND		25.0	27.1		ug/L		108	70 - 130
4-Chlorotoluene	ND		25.0	28.7		ug/L		115	70 - 130
Acetone	ND		25.0	28.4		ug/L		113	10 - 150
Benzene	ND		25.0	25.8		ug/L		103	66 - 130
Bromobenzene	ND		25.0	27.4		ug/L		110	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190411-C-2 MS

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Bromochloromethane	ND		25.0	27.0		ug/L		108	70 - 130
Bromodichloromethane	ND		25.0	29.5		ug/L		118	70 - 138
Bromoform	ND		25.0	30.4		ug/L		122	59 - 150
Bromomethane	ND		25.0	29.1		ug/L		116	62 - 131
Carbon tetrachloride	ND		25.0	29.6		ug/L		118	60 - 150
Chlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130
Chloroethane	ND		25.0	31.3		ug/L		125	68 - 130
Chloroform	ND		25.0	27.1		ug/L		108	70 - 130
Chloromethane	ND		25.0	22.5		ug/L		90	39 - 144
cis-1,2-Dichloroethene	ND		25.0	27.9		ug/L		112	70 - 130
cis-1,3-Dichloropropene	ND		25.0	28.1		ug/L		112	70 - 133
Dibromochloromethane	ND		25.0	28.0		ug/L		112	70 - 148
Dibromomethane	ND		25.0	27.5		ug/L		110	70 - 130
Dichlorodifluoromethane	ND		25.0	25.5		ug/L		102	25 - 142
Ethylbenzene	ND		25.0	29.0		ug/L		113	70 - 130
Hexachlorobutadiene	ND		25.0	28.7		ug/L		115	10 - 150
Isopropylbenzene	ND		25.0	28.8		ug/L		114	70 - 132
m,p-Xylene	ND		25.0	29.0		ug/L		116	70 - 133
Methylene Chloride	ND		25.0	26.4		ug/L		106	52 - 130
Methyl-t-Butyl Ether (MTBE)	140		25.0	154	4	ug/L		60	70 - 130
Naphthalene	ND		25.0	28.7		ug/L		115	60 - 140
n-Butylbenzene	ND		25.0	26.9		ug/L		108	61 - 149
N-Propylbenzene	ND		25.0	26.0		ug/L		103	66 - 135
o-Xylene	ND		25.0	29.6		ug/L		118	70 - 133
p-Isopropyltoluene	ND		25.0	28.8		ug/L		115	70 - 130
sec-Butylbenzene	ND		25.0	25.6		ug/L		102	67 - 134
Styrene	ND		25.0	28.7		ug/L		115	29 - 150
tert-Butylbenzene	ND		25.0	26.2		ug/L		105	70 - 130
Tetrachloroethene	ND		25.0	27.0		ug/L		108	70 - 137
Toluene	ND		25.0	27.4		ug/L		110	70 - 130
trans-1,2-Dichloroethene	ND		25.0	27.5		ug/L		110	70 - 130
trans-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	70 - 138
Trichloroethene	ND		25.0	27.4		ug/L		110	70 - 130
Trichlorofluoromethane	ND		25.0	31.4		ug/L		125	60 - 150
Vinyl chloride	ND		25.0	27.0		ug/L		108	50 - 137
Surrogate		MS	MS						
		%Recovery	Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)		117		70 - 130					
4-Bromofluorobenzene (Surr)		99		80 - 120					
Dibromofluoromethane (Surr)		113		76 - 132					
Toluene-d8 (Surr)		102		80 - 128					

Lab Sample ID: 440-190411-C-2 MSD

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		25.0	27.6		ug/L		110	60 - 149

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190411-C-2 MSD

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1-Trichloroethane	ND		25.0	28.7		ug/L	115	70 - 130	5	20	
1,1,2,2-Tetrachloroethane	ND		25.0	23.7		ug/L	95	63 - 130	0	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	25.3		ug/L	101	60 - 140	1	20	
1,1,2-Trichloroethane	ND		25.0	25.6		ug/L	103	70 - 130	2	25	
1,1-Dichloroethane	ND		25.0	25.4		ug/L	102	65 - 130	3	20	
1,1-Dichloroethene	ND		25.0	25.1		ug/L	100	70 - 130	5	20	
1,1-Dichloropropene	ND		25.0	28.0		ug/L	112	64 - 130	3	20	
1,2,3-Trichlorobenzene	ND		25.0	30.5		ug/L	122	60 - 140	2	20	
1,2,3-Trichloropropane	ND		25.0	26.8		ug/L	107	60 - 130	2	30	
1,2,4-Trichlorobenzene	ND		25.0	30.1		ug/L	121	60 - 140	2	20	
1,2,4-Trimethylbenzene	ND		25.0	26.9		ug/L	107	70 - 130	1	25	
1,2-Dibromo-3-Chloropropane	ND		25.0	27.1		ug/L	108	48 - 140	2	30	
1,2-Dibromoethane (EDB)	ND		25.0	25.6		ug/L	102	70 - 131	4	25	
1,2-Dichlorobenzene	ND		25.0	27.6		ug/L	111	70 - 130	2	20	
1,2-Dichloroethane	21		25.0	47.6		ug/L	106	56 - 146	2	20	
1,2-Dichloropropane	ND		25.0	24.5		ug/L	98	69 - 130	1	20	
1,3,5-Trimethylbenzene	ND		25.0	26.5		ug/L	106	70 - 130	2	20	
1,3-Dichlorobenzene	ND		25.0	26.4		ug/L	106	70 - 130	3	20	
1,3-Dichloropropane	ND		25.0	24.2		ug/L	97	70 - 130	4	25	
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	2	20	
2,2-Dichloropropane	ND		25.0	27.3		ug/L	109	69 - 138	4	25	
2-Chlorotoluene	ND		25.0	27.3		ug/L	109	70 - 130	1	20	
4-Chlorotoluene	ND		25.0	28.5		ug/L	114	70 - 130	1	20	
Acetone	ND		25.0	25.9		ug/L	104	10 - 150	9	35	
Benzene	ND		25.0	26.1		ug/L	105	66 - 130	1	20	
Bromobenzene	ND		25.0	27.0		ug/L	108	70 - 130	1	20	
Bromochloromethane	ND		25.0	27.9		ug/L	112	70 - 130	3	25	
Bromodichloromethane	ND		25.0	29.3		ug/L	117	70 - 138	1	20	
Bromoform	ND		25.0	30.5		ug/L	122	59 - 150	0	25	
Bromomethane	ND		25.0	28.6		ug/L	115	62 - 131	2	25	
Carbon tetrachloride	ND		25.0	28.9		ug/L	116	60 - 150	2	25	
Chlorobenzene	ND		25.0	24.7		ug/L	99	70 - 130	4	20	
Chloroethane	ND		25.0	30.6		ug/L	122	68 - 130	2	25	
Chloroform	ND		25.0	26.8		ug/L	107	70 - 130	1	20	
Chloromethane	ND		25.0	24.0		ug/L	96	39 - 144	7	25	
cis-1,2-Dichloroethene	ND		25.0	28.0		ug/L	112	70 - 130	0	20	
cis-1,3-Dichloropropene	ND		25.0	26.9		ug/L	108	70 - 133	4	20	
Dibromochloromethane	ND		25.0	27.4		ug/L	110	70 - 148	2	25	
Dibromomethane	ND		25.0	27.2		ug/L	109	70 - 130	1	25	
Dichlorodifluoromethane	ND		25.0	23.3		ug/L	93	25 - 142	9	30	
Ethylbenzene	ND		25.0	27.8		ug/L	108	70 - 130	4	20	
Hexachlorobutadiene	ND		25.0	28.2		ug/L	113	10 - 150	2	20	
Isopropylbenzene	ND		25.0	27.6		ug/L	109	70 - 132	4	20	
m,p-Xylene	ND		25.0	27.8		ug/L	111	70 - 133	4	25	
Methylene Chloride	ND		25.0	27.4		ug/L	110	52 - 130	4	20	
Methyl-t-Butyl Ether (MTBE)	140		25.0	158.4		ug/L	74	70 - 130	2	25	
Naphthalene	ND		25.0	28.5		ug/L	114	60 - 140	1	30	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190411-C-2 MSD

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
n-Butylbenzene	ND		25.0	26.6		ug/L		107	61 - 149	1	20
N-Propylbenzene	ND		25.0	25.9		ug/L		102	66 - 135	0	20
o-Xylene	ND		25.0	28.2		ug/L		113	70 - 133	5	20
p-Isopropyltoluene	ND		25.0	28.3		ug/L		113	70 - 130	2	20
sec-Butylbenzene	ND		25.0	25.4		ug/L		101	67 - 134	1	20
Styrene	ND		25.0	27.7		ug/L		111	29 - 150	4	35
tert-Butylbenzene	ND		25.0	26.4		ug/L		106	70 - 130	1	20
Tetrachloroethene	ND		25.0	26.2		ug/L		105	70 - 137	3	20
Toluene	ND		25.0	26.5		ug/L		106	70 - 130	3	20
trans-1,2-Dichloroethene	ND		25.0	27.6		ug/L		110	70 - 130	0	20
trans-1,3-Dichloropropene	ND		25.0	28.1		ug/L		112	70 - 138	3	25
Trichloroethene	ND		25.0	27.4		ug/L		110	70 - 130	0	20
Trichlorofluoromethane	ND		25.0	30.0		ug/L		120	60 - 150	4	25
Vinyl chloride	ND		25.0	27.7		ug/L		111	50 - 137	3	30
Surrogate											
	MSD	MSD									
	%Recovery	Qualifier			Limits						
1,2-Dichloroethane-d4 (Surr)	119				70 - 130						
4-Bromofluorobenzene (Surr)	101				80 - 120						
Dibromofluoromethane (Surr)	111				76 - 132						
Toluene-d8 (Surr)	98				80 - 128						

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-424710/1-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424710

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,2,4-Trichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,2-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,3-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,4-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4,5-Trichlorophenol	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4,6-Trichlorophenol	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dichlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dimethylphenol	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dinitrophenol	ND		40	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,6-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Chloronaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Chlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Methylnaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Methylphenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Nitroaniline	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Nitrophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
3,3'-Dichlorobenzidine	ND		40	ug/L		08/22/17 09:06	08/24/17 21:43	1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424710/1-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 424710

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifer						Prepared	Analyzed	Dil Fac
3-Methylphenol + 4-Methylphenol	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
3-Nitroaniline	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4,6-Dinitro-2-methylphenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Bromophenyl phenyl ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Chloro-3-methylphenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Chloroaniline	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Chlorophenyl phenyl ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Nitroaniline	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Nitrophenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Acenaphthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Acenaphthylene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Aniline	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Anthracene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzidine	ND		ND		40	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[a]anthracene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[a]pyrene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[b]fluoranthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[g,h,i]perylene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[k]fluoranthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzoic acid	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzyl alcohol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
bis (2-chloroisopropyl) ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Bis(2-chloroethoxy)methane	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Bis(2-chloroethyl)ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Bis(2-ethylhexyl) phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Butyl benzyl phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Chrysene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Dibenz(a,h)anthracene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Dibenzofuran	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Diethyl phthalate	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Dimethyl phthalate	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Di-n-butyl phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Di-n-octyl phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Fluoranthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Fluorene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachlorobenzene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachlorobutadiene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachlorocyclopentadiene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachloroethane	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Indeno[1,2,3-cd]pyrene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Isophorone	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Naphthalene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Nitrobenzene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
N-Nitrosodimethylamine	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
N-Nitrosodi-n-propylamine	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
N-Nitrosodiphenylamine	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Pentachlorophenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Phenanthrene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424710/1-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 424710

Analyte	MB		RL	Unit	D	Prepared		Dil Fac
	Result	Qualifier				Prepared	Analyzed	
Phenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
Pyrene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	84		40 - 120	08/22/17 09:06	08/24/17 21:43	1
2-Fluorobiphenyl	83		50 - 120	08/22/17 09:06	08/24/17 21:43	1
2-Fluorophenol (Surr)	76		30 - 120	08/22/17 09:06	08/24/17 21:43	1
Nitrobenzene-d5 (Surr)	80		45 - 120	08/22/17 09:06	08/24/17 21:43	1
Phenol-d6 (Surr)	77		35 - 120	08/22/17 09:06	08/24/17 21:43	1
Terphenyl-d14 (Surr)	93		10 - 150	08/22/17 09:06	08/24/17 21:43	1

Lab Sample ID: LCS 440-424710/2-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 424710

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
1,2,4-Trichlorobenzene	100	66.0		ug/L		66	25 - 84	
1,2-Dichlorobenzene	100	63.0		ug/L		63	24 - 85	
1,2-Diphenylhydrazine(as Azobenzene)	101	83.2		ug/L		82	44 - 113	
1,3-Dichlorobenzene	100	60.8		ug/L		61	20 - 80	
1,4-Dichlorobenzene	100	60.5		ug/L		61	22 - 81	
2,4,5-Trichlorophenol	100	78.7		ug/L		79	24 - 121	
2,4,6-Trichlorophenol	100	79.3		ug/L		79	20 - 121	
2,4-Dichlorophenol	100	75.9		ug/L		76	23 - 113	
2,4-Dimethylphenol	100	76.5		ug/L		76	39 - 94	
2,4-Dinitrophenol	200	162		ug/L		81	23 - 134	
2,4-Dinitrotoluene	100	79.8		ug/L		80	54 - 115	
2,6-Dinitrotoluene	100	83.1		ug/L		83	50 - 115	
2-Chloronaphthalene	100	75.1		ug/L		75	34 - 102	
2-Chlorophenol	100	70.3		ug/L		70	20 - 106	
2-Methylnaphthalene	100	73.3		ug/L		73	34 - 98	
2-Methylphenol	100	73.4		ug/L		73	36 - 103	
2-Nitroaniline	100	82.9		ug/L		83	48 - 111	
2-Nitrophenol	100	77.2		ug/L		77	20 - 117	
3,3'-Dichlorobenzidine	100	61.5		ug/L		61	22 - 97	
3-Methylphenol + 4-Methylphenol	100	75.5		ug/L		76	35 - 106	
3-Nitroaniline	100	91.5		ug/L		92	51 - 116	
4,6-Dinitro-2-methylphenol	200	162		ug/L		81	28 - 139	
4-Bromophenyl phenyl ether	100	79.4		ug/L		79	42 - 113	
4-Chloro-3-methylphenol	100	78.0		ug/L		78	44 - 110	
4-Chloroaniline	100	86.8		ug/L		87	42 - 109	
4-Chlorophenyl phenyl ether	100	78.4		ug/L		78	38 - 115	
4-Nitroaniline	100	80.0		ug/L		80	50 - 116	
4-Nitrophenol	200	162		ug/L		81	26 - 132	
Acenaphthene	100	77.7		ug/L		78	37 - 107	
Acenaphthylene	100	76.7		ug/L		77	39 - 107	
Aniline	100	73.4		ug/L		73	27 - 115	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-424710/2-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 424710

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Anthracene	100	80.7		ug/L		81	42 - 120
Benzidine	100	ND		ug/L		9	5 - 150
Benzo[a]anthracene	100	72.4		ug/L		72	42 - 115
Benzo[a]pyrene	100	77.6		ug/L		78	41 - 117
Benzo[b]fluoranthene	100	79.0		ug/L		79	36 - 113
Benzo[g,h,i]perylene	100	76.6		ug/L		77	37 - 115
Benzo[k]fluoranthene	100	80.1		ug/L		80	42 - 122
Benzoic acid	100	77.0		ug/L		77	15 - 121
Benzyl alcohol	100	76.9		ug/L		77	39 - 106
bis (2-chloroisopropyl) ether	100	71.6		ug/L		72	38 - 104
Bis(2-chloroethoxy)methane	100	74.2		ug/L		74	47 - 104
Bis(2-chloroethyl)ether	100	69.8		ug/L		70	42 - 99
Bis(2-ethylhexyl) phthalate	100	77.9		ug/L		78	43 - 124
Butyl benzyl phthalate	100	77.2		ug/L		77	44 - 122
Chrysene	100	74.3		ug/L		74	42 - 118
Dibenz(a,h)anthracene	100	72.0		ug/L		72	40 - 114
Dibenzofuran	100	77.4		ug/L		77	37 - 113
Diethyl phthalate	100	79.4		ug/L		79	51 - 120
Dimethyl phthalate	100	82.7		ug/L		83	49 - 113
Di-n-butyl phthalate	100	81.4		ug/L		81	47 - 125
Di-n-octyl phthalate	100	76.3		ug/L		76	42 - 125
Fluoranthene	100	79.0		ug/L		79	44 - 119
Fluorene	100	79.2		ug/L		79	39 - 116
Hexachlorobenzene	100	78.6		ug/L		79	43 - 112
Hexachlorobutadiene	100	60.2		ug/L		60	14 - 77
Hexachlorocyclopentadiene	100	57.5		ug/L		57	10 - 77
Hexachloroethane	100	58.9		ug/L		59	13 - 75
Indeno[1,2,3-cd]pyrene	100	76.6		ug/L		77	35 - 116
Isophorone	100	78.5		ug/L		78	48 - 107
Naphthalene	100	69.7		ug/L		70	33 - 95
Nitrobenzene	100	71.2		ug/L		71	42 - 99
N-Nitrosodimethylamine	100	66.8		ug/L		67	35 - 96
N-Nitrosodi-n-propylamine	100	77.5		ug/L		77	44 - 111
N-Nitrosodiphenylamine	100	79.5		ug/L		79	46 - 116
Pentachlorophenol	200	166		ug/L		83	26 - 136
Phenanthrene	100	79.3		ug/L		79	43 - 120
Phenol	100	68.2		ug/L		68	25 - 99
Pyrene	100	76.7		ug/L		77	43 - 119

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	80		40 - 120
2-Fluorobiphenyl	75		50 - 120
2-Fluorophenol (Surr)	64		30 - 120
Nitrobenzene-d5 (Surr)	73		45 - 120
Phenol-d6 (Surr)	71		35 - 120
Terphenyl-d14 (Surr)	77		10 - 150

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-424710/3-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 424710

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Added	Result	Qualifier							
1,2,4-Trichlorobenzene	100	68.1		ug/L	68	25 - 84		3	35	
1,2-Dichlorobenzene	100	66.8		ug/L	67	24 - 85		6	35	
1,2-Diphenylhydrazine(as Azobenzene)	101	86.5		ug/L	86	44 - 113		4	35	
1,3-Dichlorobenzene	100	63.9		ug/L	64	20 - 80		5	35	
1,4-Dichlorobenzene	100	64.5		ug/L	64	22 - 81		6	35	
2,4,5-Trichlorophenol	100	78.3		ug/L	78	24 - 121		0	35	
2,4,6-Trichlorophenol	100	80.4		ug/L	80	20 - 121		1	35	
2,4-Dichlorophenol	100	77.3		ug/L	77	23 - 113		2	35	
2,4-Dimethylphenol	100	78.5		ug/L	79	39 - 94		3	35	
2,4-Dinitrophenol	200	172		ug/L	86	23 - 134		6	35	
2,4-Dinitrotoluene	100	85.4		ug/L	85	54 - 115		7	35	
2,6-Dinitrotoluene	100	84.9		ug/L	85	50 - 115		2	35	
2-Chloronaphthalene	100	75.9		ug/L	76	34 - 102		1	35	
2-Chlorophenol	100	70.4		ug/L	70	20 - 106		0	35	
2-Methylnaphthalene	100	76.8		ug/L	77	34 - 98		5	35	
2-Methylphenol	100	74.1		ug/L	74	36 - 103		1	35	
2-Nitroaniline	100	85.4		ug/L	85	48 - 111		3	35	
2-Nitrophenol	100	79.6		ug/L	80	20 - 117		3	35	
3,3'-Dichlorobenzidine	100	43.8		ug/L	44	22 - 97		33	35	
3-Methylphenol + 4-Methylphenol	100	76.0		ug/L	76	35 - 106		1	35	
3-Nitroaniline	100	76.3		ug/L	76	51 - 116		18	35	
4,6-Dinitro-2-methylphenol	200	165		ug/L	83	28 - 139		2	35	
4-Bromophenyl phenyl ether	100	80.5		ug/L	81	42 - 113		1	35	
4-Chloro-3-methylphenol	100	83.0		ug/L	83	44 - 110		6	35	
4-Chloroaniline	100	68.0		ug/L	68	42 - 109		24	35	
4-Chlorophenyl phenyl ether	100	81.7		ug/L	82	38 - 115		4	35	
4-Nitroaniline	100	78.7		ug/L	79	50 - 116		2	35	
4-Nitrophenol	200	179		ug/L	89	26 - 132		10	35	
Acenaphthene	100	81.8		ug/L	82	37 - 107		5	35	
Acenaphthylene	100	78.9		ug/L	79	39 - 107		3	35	
Aniline	100	69.7		ug/L	70	27 - 115		5	35	
Anthracene	100	83.3		ug/L	83	42 - 120		3	35	
Benzidine	100	47.3 *		ug/L	47	5 - 150		139	35	
Benzo[a]anthracene	100	75.5		ug/L	76	42 - 115		4	35	
Benzo[a]pyrene	100	79.7		ug/L	80	41 - 117		3	35	
Benzo[b]fluoranthene	100	80.6		ug/L	81	36 - 113		2	35	
Benzo[g,h,i]perylene	100	79.4		ug/L	79	37 - 115		4	35	
Benzo[k]fluoranthene	100	81.4		ug/L	81	42 - 122		2	35	
Benzoic acid	100	81.2		ug/L	81	15 - 121		5	35	
Benzyl alcohol	100	77.8		ug/L	78	39 - 106		1	35	
bis (2-chloroisopropyl) ether	100	74.8		ug/L	75	38 - 104		4	35	
Bis(2-chloroethoxy)methane	100	76.6		ug/L	77	47 - 104		3	35	
Bis(2-chloroethyl)ether	100	71.7		ug/L	72	42 - 99		3	35	
Bis(2-ethylhexyl) phthalate	100	80.6		ug/L	81	43 - 124		3	35	
Butyl benzyl phthalate	100	79.5		ug/L	79	44 - 122		3	35	
Chrysene	100	77.1		ug/L	77	42 - 118		4	35	
Dibenz(a,h)anthracene	100	75.1		ug/L	75	40 - 114		4	35	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-424710/3-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 424710

%Rec.

RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibenzofuran	100	80.6		ug/L	81	37 - 113	4	35	
Diethyl phthalate	100	83.3		ug/L	83	51 - 120	5	35	
Dimethyl phthalate	100	84.6		ug/L	85	49 - 113	2	35	
Di-n-butyl phthalate	100	86.8		ug/L	87	47 - 125	6	35	
Di-n-octyl phthalate	100	80.2		ug/L	80	42 - 125	5	35	
Fluoranthene	100	85.2		ug/L	85	44 - 119	8	35	
Fluorene	100	83.0		ug/L	83	39 - 116	5	35	
Hexachlorobenzene	100	80.2		ug/L	80	43 - 112	2	35	
Hexachlorobutadiene	100	62.1		ug/L	62	14 - 77	3	35	
Hexachlorocyclopentadiene	100	60.6		ug/L	61	10 - 77	5	35	
Hexachloroethane	100	60.8		ug/L	61	13 - 75	3	35	
Indeno[1,2,3-cd]pyrene	100	79.2		ug/L	79	35 - 116	3	35	
Isophorone	100	81.3		ug/L	81	48 - 107	4	35	
Naphthalene	100	73.6		ug/L	74	33 - 95	5	35	
Nitrobenzene	100	74.4		ug/L	74	42 - 99	4	35	
N-Nitrosodimethylamine	100	69.8		ug/L	70	35 - 96	4	35	
N-Nitrosodi-n-propylamine	100	78.8		ug/L	79	44 - 111	2	35	
N-Nitrosodiphenylamine	100	79.4		ug/L	79	46 - 116	0	35	
Pentachlorophenol	200	174		ug/L	87	26 - 136	5	35	
Phenanthrene	100	82.2		ug/L	82	43 - 120	4	35	
Phenol	100	67.9		ug/L	68	25 - 99	0	35	
Pyrene	100	79.5		ug/L	80	43 - 119	4	35	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	82		40 - 120
2-Fluorobiphenyl	78		50 - 120
2-Fluorophenol (Surr)	64		30 - 120
Nitrobenzene-d5 (Surr)	76		45 - 120
Phenol-d6 (Surr)	70		35 - 120
Terphenyl-d14 (Surr)	79		10 - 150

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-424330/1-A

Matrix: Water

Analysis Batch: 424557

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 424330

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.49	ug/L	08/19/17 07:53	08/21/17 18:03		1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	73		36 - 90			08/19/17 07:53	08/21/17 18:03	1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Lab Sample ID: LCS 440-424330/2-A

Matrix: Water

Analysis Batch: 424557

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 424330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	1.95	1.47		ug/L		75	36 - 120
Surrogate							
Surrogate	%Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8 (Surr)	73		36 - 90				

Lab Sample ID: LCSD 440-424330/3-A

Matrix: Water

Analysis Batch: 424557

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 424330

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
1,4-Dioxane	1.97	1.44		ug/L		73	36 - 120	2
Surrogate								
Surrogate	%Recovery	LCSD Qualifier	Limits					
1,4-Dioxane-d8 (Surr)	75		36 - 90					

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-425034/1

Matrix: Water

Analysis Batch: 425034

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	mg/L			08/23/17 11:19	1

Lab Sample ID: LCS 440-425034/2

Matrix: Water

Analysis Batch: 425034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Suspended Solids	1000	999		mg/L		100	85 - 115

Lab Sample ID: 440-190742-B-1 DU

Matrix: Water

Analysis Batch: 425034

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Suspended Solids	2200		2120		mg/L		2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-190514-M-6 DU

Matrix: Water

Analysis Batch: 424501

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	8.1		8.1		SU		0.1	2

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-424512/1-A

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 424512

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050	mg/L		08/21/17 12:46	08/21/17 17:22	1

Lab Sample ID: LCS 440-424512/2-A

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Sulfide, Dissolved	0.490	0.449		mg/L		92	80 - 120

Lab Sample ID: LCSD 440-424512/3-A

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Sulfide, Dissolved	0.490	0.459		mg/L		94	80 - 120	2	20

Lab Sample ID: 440-190535-2 MS

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Water Grab

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Sulfide, Dissolved	ND	F1 HF	0.490	0.325	F1 HF	mg/L		66	70 - 130

Lab Sample ID: 440-190535-2 MSD

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Water Grab

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Sulfide, Dissolved	ND	F1 HF	0.490	0.347	HF	mg/L		71	70 - 130	6	30

Method: SM 5220D - COD

Lab Sample ID: MB 440-424545/3

Matrix: Water

Analysis Batch: 424545

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	mg/L			08/21/17 14:59	1

Lab Sample ID: LCS 440-424545/4

Matrix: Water

Analysis Batch: 424545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chemical Oxygen Demand	200	197		mg/L		98	90 - 110

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: 440-190495-A-1 MS

Matrix: Water

Analysis Batch: 424545

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
Chemical Oxygen Demand	ND		200	200		mg/L		93	70 - 120	

Lab Sample ID: 440-190495-A-1 MSD

Matrix: Water

Analysis Batch: 424545

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier						
Chemical Oxygen Demand	ND		200	203		mg/L		94	70 - 120	1	15

QC Association Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

GC/MS VOA

Analysis Batch: 424347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2 - RA	Water Grab	Total/NA	Water	8260B	
MB 440-424347/4	Method Blank	Total/NA	Water	8260B	
LCS 440-424347/6	Lab Control Sample	Total/NA	Water	8260B	
440-190535-2 MS	Water Grab	Total/NA	Water	8260B	
440-190535-2 MSD	Water Grab	Total/NA	Water	8260B	

Analysis Batch: 424411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8260B	
MB 440-424411/4	Method Blank	Total/NA	Water	8260B	
LCS 440-424411/5	Lab Control Sample	Total/NA	Water	8260B	
440-190394-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-190394-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 424413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8260B	
MB 440-424413/4	Method Blank	Total/NA	Water	8260B	
LCS 440-424413/5	Lab Control Sample	Total/NA	Water	8260B	
440-190411-C-2 MS	Matrix Spike	Total/NA	Water	8260B	
440-190411-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 424330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	3520C	
MB 440-424330/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-424330/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-424330/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 424557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8270C SIM	424330
MB 440-424330/1-A	Method Blank	Total/NA	Water	8270C SIM	424330
LCS 440-424330/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	424330
LCSD 440-424330/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	424330

Prep Batch: 424710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	3520C	
MB 440-424710/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-424710/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-424710/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 425435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8270C	424710
MB 440-424710/1-A	Method Blank	Total/NA	Water	8270C	424710
LCS 440-424710/2-A	Lab Control Sample	Total/NA	Water	8270C	424710

TestAmerica Irvine

QC Association Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

GC/MS Semi VOA (Continued)

Analysis Batch: 425435 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 440-424710/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	424710

General Chemistry

Analysis Batch: 424501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	SM 4500 H+ B	
440-190514-M-6 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 424512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Dissolved	Water	SM 4500 S2 B	
MB 440-424512/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	
LCS 440-424512/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
LCSD 440-424512/3-A	Lab Control Sample Dup	Dissolved	Water	SM 4500 S2 B	
440-190535-2 MS	Water Grab	Dissolved	Water	SM 4500 S2 B	
440-190535-2 MSD	Water Grab	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 424545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-1	Water Composite	Total/NA	Water	SM 5220D	
MB 440-424545/3	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-424545/4	Lab Control Sample	Total/NA	Water	SM 5220D	
440-190495-A-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-190495-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	

Analysis Batch: 424594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Dissolved	Water	SM 4500 S2 D	424512
MB 440-424512/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	424512
LCS 440-424512/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	424512
LCSD 440-424512/3-A	Lab Control Sample Dup	Dissolved	Water	SM 4500 S2 D	424512
440-190535-2 MS	Water Grab	Dissolved	Water	SM 4500 S2 D	424512
440-190535-2 MSD	Water Grab	Dissolved	Water	SM 4500 S2 D	424512

Analysis Batch: 425034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-1	Water Composite	Total/NA	Water	SM 2540D	
MB 440-425034/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 440-425034/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-190742-B-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

☒	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18 *
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

Chain of Custody Record

Client Information		Sampler: <i>Felix Reyes</i>	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-117441-20871.1
Client Contact: Eric Iverson		Phone: 714-651-2862	E-Mail: danielle.roberts@testamericainc.com		Page: Page 1 of 1
Company: de maximis, inc.					Job #:
Address: 1322 Scott Street, Suite 104		Due Date Requested:			Preservation Codes:
City: San Diego		TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: CA, 92106					
Phone: 949-453-1045(Tel) 949-453-1047(Fax)		PO #: Omega Chemical Wastewater			
Email: eiverson@ddmsinc.com		WO #:			
Project Name: Omega Chemical - ISCO/Composite & Grab		Project #: 44003641			
Site: California		SSOW#:			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)
					Field Filled Sample (Yes or No)
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Water Composite		8/17-18/17	08:00	C	Water
Water Grabs		8/18/17	08:00	G	Water
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Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-190535-1

Login Number: 190535

List Source: TestAmerica Irvine

List Number: 1

Creator: Avila, Stephanie 1

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
Sample custody seals, if present, are intact.	N/A	Not Present	3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-191747-1

Client Project/Site: Omega Chemical - ISCO/Composite & Grab

For:

Jacob & Hefner Associates P.C.

15375 Barranca Parkway, J-101

Irvine, California 92618

Attn: Trent Henderson



Authorized for release by:

9/16/2017 11:12:26 AM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-191747-1	OC_SP220B_EFF_090717	Water	09/07/17 11:10	09/08/17 18:16
440-191747-2	OC_SP210_INF_090717	Water	09/07/17 11:17	09/08/17 18:16
440-191747-3	OC_TB_090717	Water	09/07/17 11:00	09/08/17 18:16

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TestAmerica Irvine

Case Narrative

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Job ID: 440-191747-1

Laboratory: TestAmerica Irvine

Narrative

**Job Narrative
440-191747-1**

Comments

No additional comments.

Receipt

The samples were received on 9/8/2017 6:16 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Client Sample ID: OC_SP220B_EFF_090717**Lab Sample ID: 440-191747-1**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13		10	ug/L	1		8260B	Total/NA
Total Volatile Organic Compounds	200		150	ug/L	1		8260B	Total/NA
1,4-Dioxane	23		0.47	ug/L	1		8270C SIM	Total/NA

Client Sample ID: OC_SP210_INF_090717**Lab Sample ID: 440-191747-2**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	24		1.0	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	3.7		1.0	ug/L	1		8260B	Total/NA
Chloroform	13		1.0	ug/L	1		8260B	Total/NA
Trichloroethene	30		1.0	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	17		1.0	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	92		5.0	ug/L	1		8260B	Total/NA
Total Volatile Organic Compounds	550		150	ug/L	1		8260B	Total/NA
Tetrachloroethylene - DL	360		5.0	ug/L	5		8260B	Total/NA

Client Sample ID: OC_TB_090717**Lab Sample ID: 440-191747-3**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Client Sample ID: OC_SP220B_EFF_090717

Lab Sample ID: 440-191747-1

Matrix: Water

Date Collected: 09/07/17 11:10

Date Received: 09/08/17 18:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L		09/12/17 09:46		1
1,1,1-Trichloroethane	ND		1.0	ug/L		09/12/17 09:46		1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L		09/12/17 09:46		1
1,1,2-Trichloroethane	ND		1.0	ug/L		09/12/17 09:46		1
1,1-Dichloroethane	ND		1.0	ug/L		09/12/17 09:46		1
1,1-Dichloroethene	ND		1.0	ug/L		09/12/17 09:46		1
1,1-Dichloropropene	ND		1.0	ug/L		09/12/17 09:46		1
1,2,3-Trichlorobenzene	ND		1.0	ug/L		09/12/17 09:46		1
1,2,3-Trichloropropane	ND		1.0	ug/L		09/12/17 09:46		1
1,2,4-Trichlorobenzene	ND		1.0	ug/L		09/12/17 09:46		1
1,2,4-Trimethylbenzene	ND		1.0	ug/L		09/12/17 09:46		1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L		09/12/17 09:46		1
1,2-Dichlorobenzene	ND		1.0	ug/L		09/12/17 09:46		1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L		09/12/17 09:46		1
1,2-Dichloroethane	ND		1.0	ug/L		09/12/17 09:46		1
1,2-Dichloropropene	ND		1.0	ug/L		09/12/17 09:46		1
1,3,5-Trimethylbenzene	ND		1.0	ug/L		09/12/17 09:46		1
1,3-Dichlorobenzene	ND		1.0	ug/L		09/12/17 09:46		1
1,3-Dichloropropane	ND		1.0	ug/L		09/12/17 09:46		1
1,4-Dichlorobenzene	ND		1.0	ug/L		09/12/17 09:46		1
2,2-Dichloropropane	ND		1.0	ug/L		09/12/17 09:46		1
2-Chlorotoluene	ND		1.0	ug/L		09/12/17 09:46		1
4-Chlorotoluene	ND		1.0	ug/L		09/12/17 09:46		1
p-Isopropyltoluene	ND		1.0	ug/L		09/12/17 09:46		1
Benzene	ND		0.50	ug/L		09/12/17 09:46		1
Bromobenzene	ND		1.0	ug/L		09/12/17 09:46		1
Bromochloromethane	ND		1.0	ug/L		09/12/17 09:46		1
Bromodichloromethane	ND		1.0	ug/L		09/12/17 09:46		1
Bromoform	ND		1.0	ug/L		09/12/17 09:46		1
Bromomethane	ND		1.0	ug/L		09/12/17 09:46		1
Carbon tetrachloride	ND		0.50	ug/L		09/12/17 09:46		1
Chlorobenzene	ND		1.0	ug/L		09/12/17 09:46		1
Chloroethane	ND		1.0	ug/L		09/12/17 09:46		1
Chloroform	ND		1.0	ug/L		09/12/17 09:46		1
Chloromethane	ND		1.0	ug/L		09/12/17 09:46		1
cis-1,2-Dichloroethene	ND		1.0	ug/L		09/12/17 09:46		1
cis-1,3-Dichloropropene	ND		0.50	ug/L		09/12/17 09:46		1
Dibromochloromethane	ND		1.0	ug/L		09/12/17 09:46		1
Dibromomethane	ND		1.0	ug/L		09/12/17 09:46		1
Dichlorodifluoromethane	ND		1.0	ug/L		09/12/17 09:46		1
Ethylbenzene	ND		1.0	ug/L		09/12/17 09:46		1
Hexachlorobutadiene	ND		1.0	ug/L		09/12/17 09:46		1
Isopropylbenzene	ND		1.0	ug/L		09/12/17 09:46		1
m,p-Xylene	ND		1.0	ug/L		09/12/17 09:46		1
Methylene Chloride	ND		5.0	ug/L		09/12/17 09:46		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L		09/12/17 09:46		1
Naphthalene	ND		1.0	ug/L		09/12/17 09:46		1
n-Butylbenzene	ND		1.0	ug/L		09/12/17 09:46		1
N-Propylbenzene	ND		1.0	ug/L		09/12/17 09:46		1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Client Sample ID: OC_SP220B_EFF_090717

Lab Sample ID: 440-191747-1

Matrix: Water

Date Collected: 09/07/17 11:10

Date Received: 09/08/17 18:16

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	ug/L		09/12/17 09:46		1
sec-Butylbenzene	ND		1.0	ug/L		09/12/17 09:46		1
Styrene	ND		1.0	ug/L		09/12/17 09:46		1
tert-Butylbenzene	ND		1.0	ug/L		09/12/17 09:46		1
Tetrachloroethene	ND		1.0	ug/L		09/12/17 09:46		1
Toluene	ND		1.0	ug/L		09/12/17 09:46		1
trans-1,2-Dichloroethene	ND		1.0	ug/L		09/12/17 09:46		1
trans-1,3-Dichloropropene	ND		0.50	ug/L		09/12/17 09:46		1
Trichloroethene	ND		1.0	ug/L		09/12/17 09:46		1
Trichlorofluoromethane	ND		1.0	ug/L		09/12/17 09:46		1
Vinyl chloride	ND		0.50	ug/L		09/12/17 09:46		1
Acetone	13		10	ug/L		09/12/17 09:46		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L		09/12/17 09:46		1
Total Volatile Organic Compounds	200		150	ug/L		09/12/17 09:46		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		09/12/17 09:46	1
Dibromofluoromethane (Surr)	107		76 - 132		09/12/17 09:46	1
Toluene-d8 (Surr)	110		80 - 128		09/12/17 09:46	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		09/12/17 09:46	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	23		0.47	ug/L		09/10/17 01:24	09/12/17 02:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	72		36 - 90			09/10/17 01:24	09/12/17 02:29	1

Client Sample ID: OC_SP210_INF_090717

Lab Sample ID: 440-191747-2

Matrix: Water

Date Collected: 09/07/17 11:17

Date Received: 09/08/17 18:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L		09/12/17 11:10		1
1,1,1-Trichloroethane	ND		1.0	ug/L		09/12/17 11:10		1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L		09/12/17 11:10		1
1,1,2-Trichloroethane	ND		1.0	ug/L		09/12/17 11:10		1
1,1-Dichloroethane	ND		1.0	ug/L		09/12/17 11:10		1
1,1-Dichloroethene	24		1.0	ug/L		09/12/17 11:10		1
1,1-Dichloropropene	ND		1.0	ug/L		09/12/17 11:10		1
1,2,3-Trichlorobenzene	ND		1.0	ug/L		09/12/17 11:10		1
1,2,3-Trichloropropane	ND		1.0	ug/L		09/12/17 11:10		1
1,2,4-Trichlorobenzene	ND		1.0	ug/L		09/12/17 11:10		1
1,2,4-Trimethylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L		09/12/17 11:10		1
1,2-Dichlorobenzene	ND		1.0	ug/L		09/12/17 11:10		1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L		09/12/17 11:10		1
1,2-Dichloroethane	3.7		1.0	ug/L		09/12/17 11:10		1
1,2-Dichloropropane	ND		1.0	ug/L		09/12/17 11:10		1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Client Sample ID: OC_SP210_INF_090717

Lab Sample ID: 440-191747-2

Matrix: Water

Date Collected: 09/07/17 11:17

Date Received: 09/08/17 18:16

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
1,3-Dichlorobenzene	ND		1.0	ug/L		09/12/17 11:10		1
1,3-Dichloropropane	ND		1.0	ug/L		09/12/17 11:10		1
1,4-Dichlorobenzene	ND		1.0	ug/L		09/12/17 11:10		1
2,2-Dichloropropane	ND		1.0	ug/L		09/12/17 11:10		1
2-Chlorotoluene	ND		1.0	ug/L		09/12/17 11:10		1
4-Chlorotoluene	ND		1.0	ug/L		09/12/17 11:10		1
p-Isopropyltoluene	ND		1.0	ug/L		09/12/17 11:10		1
Benzene	ND		0.50	ug/L		09/12/17 11:10		1
Bromobenzene	ND		1.0	ug/L		09/12/17 11:10		1
Bromoform	ND		1.0	ug/L		09/12/17 11:10		1
Bromomethane	ND		1.0	ug/L		09/12/17 11:10		1
Carbon tetrachloride	ND		0.50	ug/L		09/12/17 11:10		1
Chlorobenzene	ND		1.0	ug/L		09/12/17 11:10		1
Chloroethane	ND		1.0	ug/L		09/12/17 11:10		1
Chloroform	13		1.0	ug/L		09/12/17 11:10		1
Chloromethane	ND		1.0	ug/L		09/12/17 11:10		1
cis-1,2-Dichloroethene	ND		1.0	ug/L		09/12/17 11:10		1
cis-1,3-Dichloropropene	ND		0.50	ug/L		09/12/17 11:10		1
Dibromochloromethane	ND		1.0	ug/L		09/12/17 11:10		1
Dibromomethane	ND		1.0	ug/L		09/12/17 11:10		1
Dichlorodifluoromethane	ND		1.0	ug/L		09/12/17 11:10		1
Ethylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
Hexachlorobutadiene	ND		1.0	ug/L		09/12/17 11:10		1
Isopropylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
m,p-Xylene	ND		1.0	ug/L		09/12/17 11:10		1
Methylene Chloride	ND		5.0	ug/L		09/12/17 11:10		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L		09/12/17 11:10		1
Naphthalene	ND		1.0	ug/L		09/12/17 11:10		1
n-Butylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
N-Propylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
o-Xylene	ND		1.0	ug/L		09/12/17 11:10		1
sec-Butylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
Styrene	ND		1.0	ug/L		09/12/17 11:10		1
tert-Butylbenzene	ND		1.0	ug/L		09/12/17 11:10		1
Toluene	ND		1.0	ug/L		09/12/17 11:10		1
trans-1,2-Dichloroethene	ND		1.0	ug/L		09/12/17 11:10		1
trans-1,3-Dichloropropene	ND		0.50	ug/L		09/12/17 11:10		1
Trichloroethene	30		1.0	ug/L		09/12/17 11:10		1
Trichlorofluoromethane	17		1.0	ug/L		09/12/17 11:10		1
Vinyl chloride	ND		0.50	ug/L		09/12/17 11:10		1
Acetone	ND		10	ug/L		09/12/17 11:10		1
1,1,2-Trichloro-1,2,2-trifluoroethane	92		5.0	ug/L		09/12/17 11:10		1
Total Volatile Organic Compounds	550		150	ug/L		09/12/17 11:10		1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Client Sample ID: OC_SP210_INF_090717

Lab Sample ID: 440-191747-2

Matrix: Water

Date Collected: 09/07/17 11:17

Date Received: 09/08/17 18:16

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		09/12/17 11:10	1
Dibromofluoromethane (Surr)	108		76 - 132		09/12/17 11:10	1
Toluene-d8 (Surr)	109		80 - 128		09/12/17 11:10	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		09/12/17 11:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	360		5.0	ug/L			09/12/17 11:38	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120				09/12/17 11:38	5
Dibromofluoromethane (Surr)	111		76 - 132				09/12/17 11:38	5
Toluene-d8 (Surr)	109		80 - 128				09/12/17 11:38	5
1,2-Dichloroethane-d4 (Surr)	110		70 - 130				09/12/17 11:38	5

Client Sample ID: OC_TB_090717

Lab Sample ID: 440-191747-3

Matrix: Water

Date Collected: 09/07/17 11:00

Date Received: 09/08/17 18:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			09/12/17 12:06	1
1,1,1-Trichloroethane	ND		1.0	ug/L			09/12/17 12:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			09/12/17 12:06	1
1,1,2-Trichloroethane	ND		1.0	ug/L			09/12/17 12:06	1
1,1-Dichloroethane	ND		1.0	ug/L			09/12/17 12:06	1
1,1-Dichloroethene	ND		1.0	ug/L			09/12/17 12:06	1
1,1-Dichloropropene	ND		1.0	ug/L			09/12/17 12:06	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			09/12/17 12:06	1
1,2,3-Trichloropropane	ND		1.0	ug/L			09/12/17 12:06	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			09/12/17 12:06	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			09/12/17 12:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			09/12/17 12:06	1
1,2-Dichlorobenzene	ND		1.0	ug/L			09/12/17 12:06	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			09/12/17 12:06	1
1,2-Dichloroethane	ND		1.0	ug/L			09/12/17 12:06	1
1,2-Dichloropropene	ND		1.0	ug/L			09/12/17 12:06	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			09/12/17 12:06	1
1,3-Dichlorobenzene	ND		1.0	ug/L			09/12/17 12:06	1
1,3-Dichloropropane	ND		1.0	ug/L			09/12/17 12:06	1
1,4-Dichlorobenzene	ND		1.0	ug/L			09/12/17 12:06	1
2,2-Dichloropropane	ND		1.0	ug/L			09/12/17 12:06	1
2-Chlorotoluene	ND		1.0	ug/L			09/12/17 12:06	1
4-Chlorotoluene	ND		1.0	ug/L			09/12/17 12:06	1
p-Isopropyltoluene	ND		1.0	ug/L			09/12/17 12:06	1
Benzene	ND		0.50	ug/L			09/12/17 12:06	1
Bromobenzene	ND		1.0	ug/L			09/12/17 12:06	1
Bromochloromethane	ND		1.0	ug/L			09/12/17 12:06	1
Bromodichloromethane	ND		1.0	ug/L			09/12/17 12:06	1
Bromoform	ND		1.0	ug/L			09/12/17 12:06	1
Bromomethane	ND		1.0	ug/L			09/12/17 12:06	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Client Sample ID: OC_TB_090717

Lab Sample ID: 440-191747-3

Matrix: Water

Date Collected: 09/07/17 11:00

Date Received: 09/08/17 18:16

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		0.50	ug/L		09/12/17 12:06		1
Chlorobenzene	ND		1.0	ug/L		09/12/17 12:06		1
Chloroethane	ND		1.0	ug/L		09/12/17 12:06		1
Chloroform	ND		1.0	ug/L		09/12/17 12:06		1
Chloromethane	ND		1.0	ug/L		09/12/17 12:06		1
cis-1,2-Dichloroethene	ND		1.0	ug/L		09/12/17 12:06		1
cis-1,3-Dichloropropene	ND		0.50	ug/L		09/12/17 12:06		1
Dibromochloromethane	ND		1.0	ug/L		09/12/17 12:06		1
Dibromomethane	ND		1.0	ug/L		09/12/17 12:06		1
Dichlorodifluoromethane	ND		1.0	ug/L		09/12/17 12:06		1
Ethylbenzene	ND		1.0	ug/L		09/12/17 12:06		1
Hexachlorobutadiene	ND		1.0	ug/L		09/12/17 12:06		1
Isopropylbenzene	ND		1.0	ug/L		09/12/17 12:06		1
m,p-Xylene	ND		1.0	ug/L		09/12/17 12:06		1
Methylene Chloride	ND		5.0	ug/L		09/12/17 12:06		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L		09/12/17 12:06		1
Naphthalene	ND		1.0	ug/L		09/12/17 12:06		1
n-Butylbenzene	ND		1.0	ug/L		09/12/17 12:06		1
N-Propylbenzene	ND		1.0	ug/L		09/12/17 12:06		1
o-Xylene	ND		1.0	ug/L		09/12/17 12:06		1
sec-Butylbenzene	ND		1.0	ug/L		09/12/17 12:06		1
Styrene	ND		1.0	ug/L		09/12/17 12:06		1
tert-Butylbenzene	ND		1.0	ug/L		09/12/17 12:06		1
Tetrachloroethene	ND		1.0	ug/L		09/12/17 12:06		1
Toluene	ND		1.0	ug/L		09/12/17 12:06		1
trans-1,2-Dichloroethene	ND		1.0	ug/L		09/12/17 12:06		1
trans-1,3-Dichloropropene	ND		0.50	ug/L		09/12/17 12:06		1
Trichloroethene	ND		1.0	ug/L		09/12/17 12:06		1
Trichlorofluoromethane	ND		1.0	ug/L		09/12/17 12:06		1
Vinyl chloride	ND		0.50	ug/L		09/12/17 12:06		1
Acetone	ND		10	ug/L		09/12/17 12:06		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L		09/12/17 12:06		1
Total Volatile Organic Compounds	ND		150	ug/L		09/12/17 12:06		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		09/12/17 12:06	1
Dibromofluoromethane (Surr)	107		76 - 132		09/12/17 12:06	1
Toluene-d8 (Surr)	109		80 - 128		09/12/17 12:06	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		09/12/17 12:06	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (76-132)	TOL (80-128)	12DCE (70-130)
440-191747-1	OC_SP220B_EFF_090717	101	107	110	103
440-191747-1 MS	OC_SP220B_EFF_090717	101	107	108	102
440-191747-1 MSD	OC_SP220B_EFF_090717	101	106	106	103
440-191747-2 - DL	OC_SP210_INF_090717	99	111	109	110
440-191747-2	OC_SP210_INF_090717	99	108	109	104
440-191747-3	OC_TB_090717	100	107	109	113
LCS 440-428362/5	Lab Control Sample	102	104	108	100
MB 440-428362/4	Method Blank	99	110	112	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		14DD8 (36-90)			
440-191747-1	OC_SP220B_EFF_090717	72			
440-191776-A-2-A MS	Matrix Spike	63			
440-191776-A-2-B MSD	Matrix Spike Duplicate	60			
LCS 440-428126/2-A	Lab Control Sample	75			
MB 440-428126/1-A	Method Blank	72			

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

TestAmerica Irvine

Method Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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TestAmerica Irvine

Lab Chronicle

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Client Sample ID: OC_SP220B_EFF_090717

Lab Sample ID: 440-191747-1

Matrix: Water

Date Collected: 09/07/17 11:10

Date Received: 09/08/17 18:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	428362	09/12/17 09:46	L1B	TAL IRV
Total/NA	Prep	3520C			1055 mL	1.0 mL	428126	09/10/17 01:24	JS1	TAL IRV
Total/NA	Analysis	8270C SIM		1			428284	09/12/17 02:29	TL	TAL IRV

Client Sample ID: OC_SP210_INF_090717

Lab Sample ID: 440-191747-2

Matrix: Water

Date Collected: 09/07/17 11:17

Date Received: 09/08/17 18:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	428362	09/12/17 11:10	L1B	TAL IRV
Total/NA	Analysis	8260B	DL	5	10 mL	10 mL	428362	09/12/17 11:38	L1B	TAL IRV

Client Sample ID: OC_TB_090717

Lab Sample ID: 440-191747-3

Matrix: Water

Date Collected: 09/07/17 11:00

Date Received: 09/08/17 18:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	428362	09/12/17 12:06	L1B	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-428362/4

Matrix: Water

Analysis Batch: 428362

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L		09/12/17 08:17		1
1,1,1-Trichloroethane	ND		1.0	ug/L		09/12/17 08:17		1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L		09/12/17 08:17		1
1,1,2-Trichloroethane	ND		1.0	ug/L		09/12/17 08:17		1
1,1-Dichloroethane	ND		1.0	ug/L		09/12/17 08:17		1
1,1-Dichloroethene	ND		1.0	ug/L		09/12/17 08:17		1
1,1-Dichloropropene	ND		1.0	ug/L		09/12/17 08:17		1
1,2,3-Trichlorobenzene	ND		1.0	ug/L		09/12/17 08:17		1
1,2,3-Trichloropropane	ND		1.0	ug/L		09/12/17 08:17		1
1,2,4-Trichlorobenzene	ND		1.0	ug/L		09/12/17 08:17		1
1,2,4-Trimethylbenzene	ND		1.0	ug/L		09/12/17 08:17		1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L		09/12/17 08:17		1
1,2-Dichlorobenzene	ND		1.0	ug/L		09/12/17 08:17		1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L		09/12/17 08:17		1
1,2-Dichloroethane	ND		1.0	ug/L		09/12/17 08:17		1
1,2-Dichloropropane	ND		1.0	ug/L		09/12/17 08:17		1
1,3,5-Trimethylbenzene	ND		1.0	ug/L		09/12/17 08:17		1
1,3-Dichlorobenzene	ND		1.0	ug/L		09/12/17 08:17		1
1,3-Dichloropropane	ND		1.0	ug/L		09/12/17 08:17		1
1,4-Dichlorobenzene	ND		1.0	ug/L		09/12/17 08:17		1
2,2-Dichloropropane	ND		1.0	ug/L		09/12/17 08:17		1
2-Chlorotoluene	ND		1.0	ug/L		09/12/17 08:17		1
4-Chlorotoluene	ND		1.0	ug/L		09/12/17 08:17		1
p-Isopropyltoluene	ND		1.0	ug/L		09/12/17 08:17		1
Benzene	ND		0.50	ug/L		09/12/17 08:17		1
Bromobenzene	ND		1.0	ug/L		09/12/17 08:17		1
Bromochloromethane	ND		1.0	ug/L		09/12/17 08:17		1
Bromodichloromethane	ND		1.0	ug/L		09/12/17 08:17		1
Bromoform	ND		1.0	ug/L		09/12/17 08:17		1
Bromomethane	ND		1.0	ug/L		09/12/17 08:17		1
Carbon tetrachloride	ND		0.50	ug/L		09/12/17 08:17		1
Chlorobenzene	ND		1.0	ug/L		09/12/17 08:17		1
Chloroethane	ND		1.0	ug/L		09/12/17 08:17		1
Chloroform	ND		1.0	ug/L		09/12/17 08:17		1
Chloromethane	ND		1.0	ug/L		09/12/17 08:17		1
cis-1,2-Dichloroethene	ND		1.0	ug/L		09/12/17 08:17		1
cis-1,3-Dichloropropene	ND		0.50	ug/L		09/12/17 08:17		1
Dibromochloromethane	ND		1.0	ug/L		09/12/17 08:17		1
Dibromomethane	ND		1.0	ug/L		09/12/17 08:17		1
Dichlorodifluoromethane	ND		1.0	ug/L		09/12/17 08:17		1
Ethylbenzene	ND		1.0	ug/L		09/12/17 08:17		1
Hexachlorobutadiene	ND		1.0	ug/L		09/12/17 08:17		1
Isopropylbenzene	ND		1.0	ug/L		09/12/17 08:17		1
m,p-Xylene	ND		1.0	ug/L		09/12/17 08:17		1
Methylene Chloride	ND		5.0	ug/L		09/12/17 08:17		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L		09/12/17 08:17		1
Naphthalene	ND		1.0	ug/L		09/12/17 08:17		1
n-Butylbenzene	ND		1.0	ug/L		09/12/17 08:17		1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-428362/4

Matrix: Water

Analysis Batch: 428362

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	ug/L			09/12/17 08:17	1
o-Xylene	ND		1.0	ug/L			09/12/17 08:17	1
sec-Butylbenzene	ND		1.0	ug/L			09/12/17 08:17	1
Styrene	ND		1.0	ug/L			09/12/17 08:17	1
tert-Butylbenzene	ND		1.0	ug/L			09/12/17 08:17	1
Tetrachloroethene	ND		1.0	ug/L			09/12/17 08:17	1
Toluene	ND		1.0	ug/L			09/12/17 08:17	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			09/12/17 08:17	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			09/12/17 08:17	1
Trichloroethene	ND		1.0	ug/L			09/12/17 08:17	1
Trichlorofluoromethane	ND		1.0	ug/L			09/12/17 08:17	1
Vinyl chloride	ND		0.50	ug/L			09/12/17 08:17	1
Acetone	ND		10	ug/L			09/12/17 08:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			09/12/17 08:17	1
Total Volatile Organic Compounds	ND		150	ug/L			09/12/17 08:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120			1
Dibromofluoromethane (Surr)	110		76 - 132			1
Toluene-d8 (Surr)	112		80 - 128			1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130			1

Lab Sample ID: LCS 440-428362/5

Matrix: Water

Analysis Batch: 428362

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1,1,2-Tetrachloroethane	25.0	27.8		ug/L		111	60 - 141	
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	70 - 130	
1,1,2,2-Tetrachloroethane	25.0	25.8		ug/L		103	63 - 130	
1,1,2-Trichloroethane	25.0	27.2		ug/L		109	70 - 130	
1,1-Dichloroethane	25.0	25.1		ug/L		100	64 - 130	
1,1-Dichloroethene	25.0	24.0		ug/L		96	70 - 130	
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	
1,2,3-Trichlorobenzene	25.0	28.5		ug/L		114	60 - 140	
1,2,3-Trichloropropane	25.0	25.1		ug/L		100	63 - 130	
1,2,4-Trichlorobenzene	25.0	26.7		ug/L		107	60 - 140	
1,2,4-Trimethylbenzene	25.0	24.9		ug/L		99	70 - 135	
1,2-Dibromo-3-Chloropropane	25.0	27.1		ug/L		109	52 - 140	
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	
1,2-Dibromoethane (EDB)	25.0	26.1		ug/L		104	70 - 130	
1,2-Dichloroethane	25.0	24.3		ug/L		97	57 - 138	
1,2-Dichloropropane	25.0	25.2		ug/L		101	67 - 130	
1,3,5-Trimethylbenzene	25.0	25.5		ug/L		102	70 - 136	
1,3-Dichlorobenzene	25.0	24.9		ug/L		99	70 - 130	
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	
2,2-Dichloropropane	25.0	27.1		ug/L		108	68 - 141	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-428362/5

Matrix: Water

Analysis Batch: 428362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier				Limits	
2-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130	
4-Chlorotoluene	25.0	25.3		ug/L		101	70 - 130	
p-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 132	
Benzene	25.0	25.8		ug/L		103	68 - 130	
Bromobenzene	25.0	24.4		ug/L		98	70 - 130	
Bromochloromethane	25.0	24.7		ug/L		99	70 - 130	
Bromodichloromethane	25.0	25.7		ug/L		103	70 - 132	
Bromoform	25.0	29.7		ug/L		119	60 - 148	
Bromomethane	25.0	24.3		ug/L		97	64 - 139	
Carbon tetrachloride	25.0	26.9		ug/L		107	60 - 150	
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130	
Chloroethane	25.0	23.6		ug/L		95	64 - 135	
Chloroform	25.0	24.9		ug/L		99	70 - 130	
Chloromethane	25.0	24.6		ug/L		98	47 - 140	
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	70 - 133	
cis-1,3-Dichloropropene	25.0	28.3		ug/L		113	70 - 133	
Dibromochloromethane	25.0	28.7		ug/L		115	69 - 145	
Dibromomethane	25.0	24.6		ug/L		98	70 - 130	
Dichlorodifluoromethane	25.0	23.5		ug/L		94	29 - 150	
Ethylbenzene	25.0	25.0		ug/L		100	70 - 130	
Hexachlorobutadiene	25.0	29.1		ug/L		116	10 - 150	
Isopropylbenzene	25.0	25.5		ug/L		102	70 - 136	
m,p-Xylene	25.0	25.3		ug/L		101	70 - 130	
Methylene Chloride	25.0	23.9		ug/L		96	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	24.8		ug/L		99	63 - 131	
Naphthalene	25.0	27.0		ug/L		108	60 - 140	
n-Butylbenzene	25.0	26.3		ug/L		105	65 - 150	
N-Propylbenzene	25.0	25.2		ug/L		101	67 - 139	
o-Xylene	25.0	25.6		ug/L		102	70 - 130	
sec-Butylbenzene	25.0	25.7		ug/L		103	70 - 138	
Styrene	25.0	24.9		ug/L		99	70 - 134	
tert-Butylbenzene	25.0	25.6		ug/L		102	70 - 130	
Tetrachloroethene	25.0	26.4		ug/L		106	70 - 130	
Toluene	25.0	26.9		ug/L		108	70 - 130	
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	70 - 130	
trans-1,3-Dichloropropene	25.0	26.9		ug/L		108	70 - 132	
Trichloroethene	25.0	24.5		ug/L		98	70 - 130	
Trichlorofluoromethane	25.0	25.7		ug/L		103	60 - 150	
Vinyl chloride	25.0	24.1		ug/L		97	59 - 133	
Acetone	25.0	26.6		ug/L		106	10 - 150	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	104		76 - 132
Toluene-d8 (Surr)	108		80 - 128
1,2-Dichloroethane-d4 (Surr)	100		70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-191747-1 MS

Matrix: Water

Analysis Batch: 428362

Client Sample ID: OC_SP220B_EFF_090717

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	28.9		ug/L		116	60 - 149
1,1,1-Trichloroethane	ND		25.0	24.9		ug/L		100	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	24.3		ug/L		97	63 - 130
1,1,2-Trichloroethane	ND		25.0	27.9		ug/L		111	70 - 130
1,1-Dichloroethane	ND		25.0	25.5		ug/L		102	65 - 130
1,1-Dichloroethene	ND		25.0	22.6		ug/L		90	70 - 130
1,1-Dichloropropene	ND		25.0	25.7		ug/L		103	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	29.9		ug/L		119	60 - 140
1,2,3-Trichloropropane	ND		25.0	24.3		ug/L		97	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	28.1		ug/L		112	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	24.1		ug/L		96	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	24.7		ug/L		99	48 - 140
1,2-Dichlorobenzene	ND		25.0	25.3		ug/L		101	70 - 130
1,2-Dibromoethane (EDB)	ND		25.0	26.2		ug/L		105	70 - 131
1,2-Dichloroethane	ND		25.0	25.4		ug/L		102	56 - 146
1,2-Dichloropropane	ND		25.0	25.8		ug/L		103	69 - 130
1,3,5-Trimethylbenzene	ND		25.0	24.7		ug/L		99	70 - 130
1,3-Dichlorobenzene	ND		25.0	24.8		ug/L		99	70 - 130
1,3-Dichloropropane	ND		25.0	26.7		ug/L		107	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.1		ug/L		101	70 - 130
2,2-Dichloropropane	ND		25.0	27.9		ug/L		112	69 - 138
2-Chlorotoluene	ND		25.0	24.2		ug/L		97	70 - 130
4-Chlorotoluene	ND		25.0	24.7		ug/L		99	70 - 130
p-Isopropyltoluene	ND		25.0	24.2		ug/L		97	70 - 130
Benzene	ND		25.0	26.2		ug/L		105	66 - 130
Bromobenzene	ND		25.0	24.2		ug/L		97	70 - 130
Bromochloromethane	ND		25.0	25.9		ug/L		104	70 - 130
Bromodichloromethane	ND		25.0	27.6		ug/L		110	70 - 138
Bromoform	ND		25.0	30.1		ug/L		121	59 - 150
Bromomethane	ND		25.0	23.6		ug/L		94	62 - 131
Carbon tetrachloride	ND		25.0	26.9		ug/L		108	60 - 150
Chlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130
Chloroethane	ND		25.0	23.0		ug/L		92	68 - 130
Chloroform	ND		25.0	25.1		ug/L		101	70 - 130
Chloromethane	ND		25.0	23.8		ug/L		95	39 - 144
cis-1,2-Dichloroethene	ND		25.0	26.1		ug/L		105	70 - 130
cis-1,3-Dichloropropene	ND		25.0	28.9		ug/L		116	70 - 133
Dibromochloromethane	ND		25.0	29.7		ug/L		119	70 - 148
Dibromomethane	ND		25.0	25.2		ug/L		101	70 - 130
Dichlorodifluoromethane	ND		25.0	21.0		ug/L		84	25 - 142
Ethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130
Hexachlorobutadiene	ND		25.0	28.8		ug/L		115	10 - 150
Isopropylbenzene	ND		25.0	25.4		ug/L		102	70 - 132
m,p-Xylene	ND		25.0	25.8		ug/L		103	70 - 133
Methylene Chloride	ND		25.0	24.1		ug/L		96	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.2		ug/L		105	70 - 130
Naphthalene	ND		25.0	26.5		ug/L		106	60 - 140
n-Butylbenzene	ND		25.0	25.9		ug/L		103	61 - 149

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-191747-1 MS

Matrix: Water

Analysis Batch: 428362

Client Sample ID: OC_SP220B_EFF_090717

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
N-Propylbenzene	ND		25.0	24.6		ug/L		99	66 - 135
o-Xylene	ND		25.0	25.8		ug/L		103	70 - 133
sec-Butylbenzene	ND		25.0	24.9		ug/L		100	67 - 134
Styrene	ND		25.0	24.4		ug/L		97	29 - 150
tert-Butylbenzene	ND		25.0	25.0		ug/L		100	70 - 130
Tetrachloroethene	ND		25.0	25.8		ug/L		103	70 - 137
Toluene	ND		25.0	27.1		ug/L		108	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130
trans-1,3-Dichloropropene	ND		25.0	28.4		ug/L		114	70 - 138
Trichloroethene	ND		25.0	24.5		ug/L		98	70 - 130
Trichlorofluoromethane	ND		25.0	24.3		ug/L		97	60 - 150
Vinyl chloride	ND		25.0	22.6		ug/L		91	50 - 137
Acetone	13		25.0	35.5		ug/L		91	10 - 150
<hr/>									
Surrogate	MS		MS		Limits				
	%Recovery		Qualifier						
4-Bromofluorobenzene (Surr)	101				80 - 120				
Dibromofluoromethane (Surr)	107				76 - 132				
Toluene-d8 (Surr)	108				80 - 128				
1,2-Dichloroethane-d4 (Surr)	102				70 - 130				

Lab Sample ID: 440-191747-1 MSD

Matrix: Water

Analysis Batch: 428362

Client Sample ID: OC_SP220B_EFF_090717

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	ND		25.0	28.9		ug/L		116	60 - 149	0	20
1,1,1-Trichloroethane	ND		25.0	25.7		ug/L		103	70 - 130	3	20
1,1,2,2-Tetrachloroethane	ND		25.0	25.8		ug/L		103	63 - 130	6	30
1,1,2-Trichloroethane	ND		25.0	28.4		ug/L		114	70 - 130	2	25
1,1-Dichloroethane	ND		25.0	25.9		ug/L		104	65 - 130	1	20
1,1-Dichloroethene	ND		25.0	22.9		ug/L		92	70 - 130	2	20
1,1-Dichloropropene	ND		25.0	26.1		ug/L		105	64 - 130	2	20
1,2,3-Trichlorobenzene	ND		25.0	31.5		ug/L		126	60 - 140	5	20
1,2,3-Trichloropropane	ND		25.0	25.1		ug/L		100	60 - 130	3	30
1,2,4-Trichlorobenzene	ND		25.0	29.4		ug/L		117	60 - 140	4	20
1,2,4-Trimethylbenzene	ND		25.0	24.7		ug/L		99	70 - 130	3	25
1,2-Dibromo-3-Chloropropane	ND		25.0	27.1		ug/L		108	48 - 140	9	30
1,2-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130	3	20
1,2-Dibromoethane (EDB)	ND		25.0	27.1		ug/L		108	70 - 131	3	25
1,2-Dichloroethane	ND		25.0	26.2		ug/L		105	56 - 146	3	20
1,2-Dichloropropane	ND		25.0	27.0		ug/L		108	69 - 130	5	20
1,3,5-Trimethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130	3	20
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130	2	20
1,3-Dichloropropane	ND		25.0	27.0		ug/L		108	70 - 130	1	25
1,4-Dichlorobenzene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
2,2-Dichloropropane	ND		25.0	28.3		ug/L		113	69 - 138	1	25
2-Chlorotoluene	ND		25.0	24.7		ug/L		99	70 - 130	2	20
4-Chlorotoluene	ND		25.0	25.3		ug/L		101	70 - 130	2	20

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-191747-1 MSD

Client Sample ID: OC_SP220B_EFF_090717

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 428362

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
p-Isopropyltoluene	ND		25.0	24.8		ug/L	99	70 - 130	2	20	
Benzene	ND		25.0	26.9		ug/L	108	66 - 130	3	20	
Bromobenzene	ND		25.0	25.1		ug/L	101	70 - 130	4	20	
Bromoform	ND		25.0	27.1		ug/L	108	70 - 130	4	25	
Bromochloromethane	ND		25.0	28.2		ug/L	113	70 - 138	2	20	
Bromodichloromethane	ND		25.0	31.9		ug/L	128	59 - 150	6	25	
Bromoform	ND		25.0	24.7		ug/L	99	62 - 131	5	25	
Bromomethane	ND		25.0	27.2		ug/L	109	60 - 150	1	25	
Carbon tetrachloride	ND		25.0	25.9		ug/L	103	70 - 130	2	20	
Chlorobenzene	ND		25.0	23.5		ug/L	94	68 - 130	2	25	
Chloroethane	ND		25.0	25.7		ug/L	103	70 - 130	2	20	
Chloroform	ND		25.0	24.1		ug/L	96	39 - 144	1	25	
cis-1,2-Dichloroethene	ND		25.0	27.1		ug/L	108	70 - 130	4	20	
cis-1,3-Dichloropropene	ND		25.0	29.7		ug/L	119	70 - 133	3	20	
Dibromochloromethane	ND		25.0	31.0		ug/L	124	70 - 148	4	25	
Dibromomethane	ND		25.0	26.0		ug/L	104	70 - 130	3	25	
Dichlorodifluoromethane	ND		25.0	21.6		ug/L	86	25 - 142	3	30	
Ethylbenzene	ND		25.0	25.7		ug/L	103	70 - 130	1	20	
Hexachlorobutadiene	ND		25.0	29.3		ug/L	117	10 - 150	2	20	
Isopropylbenzene	ND		25.0	25.7		ug/L	103	70 - 132	1	20	
m,p-Xylene	ND		25.0	25.9		ug/L	104	70 - 133	1	25	
Methylene Chloride	ND		25.0	23.4		ug/L	94	52 - 130	3	20	
Methyl-t-Butyl Ether (MTBE)	ND		25.0	28.0		ug/L	112	70 - 130	7	25	
Naphthalene	ND		25.0	28.7		ug/L	115	60 - 140	8	30	
n-Butylbenzene	ND		25.0	26.3		ug/L	105	61 - 149	1	20	
N-Propylbenzene	ND		25.0	25.0		ug/L	100	66 - 135	1	20	
o-Xylene	ND		25.0	26.7		ug/L	107	70 - 133	3	20	
sec-Butylbenzene	ND		25.0	25.3		ug/L	101	67 - 134	2	20	
Styrene	ND		25.0	25.2		ug/L	101	29 - 150	3	35	
tert-Butylbenzene	ND		25.0	25.3		ug/L	101	70 - 130	1	20	
Tetrachloroethene	ND		25.0	26.4		ug/L	105	70 - 137	2	20	
Toluene	ND		25.0	27.2		ug/L	109	70 - 130	0	20	
trans-1,2-Dichloroethene	ND		25.0	26.4		ug/L	105	70 - 130	5	20	
trans-1,3-Dichloropropene	ND		25.0	29.3		ug/L	117	70 - 138	3	25	
Trichloroethene	ND		25.0	25.2		ug/L	101	70 - 130	3	20	
Trichlorofluoromethane	ND		25.0	24.7		ug/L	99	60 - 150	1	25	
Vinyl chloride	ND		25.0	23.0		ug/L	92	50 - 137	2	30	
Acetone	13		25.0	38.3		ug/L	102	10 - 150	7	35	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	106		76 - 132
Toluene-d8 (Surr)	106		80 - 128
1,2-Dichloroethane-d4 (Surr)	103		70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-428126/1-A

Matrix: Water

Analysis Batch: 428284

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 428126

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.49	ug/L		09/10/17 01:24	09/11/17 23:27	1
Surrogate								
1,4-Dioxane-d8 (Surr)	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
	72		36 - 90			09/10/17 01:24	09/11/17 23:27	1

Lab Sample ID: LCS 440-428126/2-A

Matrix: Water

Analysis Batch: 428284

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 428126

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	1.98	1.44		ug/L		73	36 - 120
Surrogate							
1,4-Dioxane-d8 (Surr)	%Recovery	LCS Qualifier	Limits				
	75		36 - 90				

Lab Sample ID: 440-191776-A-2-A MS

Matrix: Water

Analysis Batch: 428284

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 428126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	ND		1.94	1.27		ug/L		65	12 - 100
Surrogate									
1,4-Dioxane-d8 (Surr)	%Recovery	MS Qualifier	Limits						
	63		36 - 90						

Lab Sample ID: 440-191776-A-2-B MSD

Matrix: Water

Analysis Batch: 428284

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 428126

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	Limit
1,4-Dioxane	ND		1.95	1.23		ug/L		63	12 - 100	
Surrogate										
1,4-Dioxane-d8 (Surr)	%Recovery	MSD Qualifier	Limits						3	35
	60		36 - 90							

QC Association Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

GC/MS VOA

Analysis Batch: 428362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-191747-1	OC_SP220B_EFF_090717	Total/NA	Water	8260B	
440-191747-2	OC_SP210_INF_090717	Total/NA	Water	8260B	
440-191747-2 - DL	OC_SP210_INF_090717	Total/NA	Water	8260B	
440-191747-3	OC_TB_090717	Total/NA	Water	8260B	
MB 440-428362/4	Method Blank	Total/NA	Water	8260B	
LCS 440-428362/5	Lab Control Sample	Total/NA	Water	8260B	
440-191747-1 MS	OC_SP220B_EFF_090717	Total/NA	Water	8260B	
440-191747-1 MSD	OC_SP220B_EFF_090717	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 428126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-191747-1	OC_SP220B_EFF_090717	Total/NA	Water	3520C	
MB 440-428126/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-428126/2-A	Lab Control Sample	Total/NA	Water	3520C	
440-191776-A-2-A MS	Matrix Spike	Total/NA	Water	3520C	
440-191776-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	

Analysis Batch: 428284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-191747-1	OC_SP220B_EFF_090717	Total/NA	Water	8270C SIM	428126
MB 440-428126/1-A	Method Blank	Total/NA	Water	8270C SIM	428126
LCS 440-428126/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	428126
440-191776-A-2-A MS	Matrix Spike	Total/NA	Water	8270C SIM	428126
440-191776-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM	428126

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-191747-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

TestAmerica Irvine

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Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

34133-11-00

3.4/3.2 1/k-scq

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-191747-1

Login Number: 191747

List Source: TestAmerica Irvine

List Number: 1

Creator: Soderblom, Tim

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
Sample custody seals, if present, are intact.	N/A	Not Present	3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		



DATA VALIDATION
FOR
SEMI-ANNUAL GROUND WATER MONITORING
OMEGA CHEMICAL SITE
WHITTIER CALIFORNIA
ORGANIC ANALYSIS DATA
Volatiles in Water

Laboratory Job Nos.

440-189727-1
440-189818-1
440-189911-1
440-189912-1
440-190083-1

Analyses Performed By:

TestAmerica
Irvine, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

September 22, 2017

1547-3139C/jlr
Omega\Voa.docx

EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Test America-Irvine for 25 ground water samples and five trip blanks from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Full validation was performed on three samples (**bolded below**), which represent 10% of the total number of ground water samples received and analyzed by Test America. The data were reported by the laboratory under Laboratory Job Nos. 440-189727-1, 440-189818-1, 440-189911-1, 440-189912-1 and 440-190083-1. The following samples were reported:

SDG 440-189727-1

OC_GW_DPE-11D_20170807	OC_GW_DPE-10D_20170807
OC_GW_DPE-13D_20170807	OC_GW_DPE-8_20170807
OC_GW_DPE-7D_20170807	OC_GW_DPE-5_20170807
OC_GW_DPE-4_20170807	OC_GW_DPE-9_20170807
OC_GW_DPE-5_20170807	OC_GW_EW-4_20170807
OC_GW_TB1_20170807	OC_GW_TB2_20170807
OC_GW_EW-3_20170807	

SDG 440-189818-1

OC_GW_OW-3B_20170808	OC_GW_OW-8B_20170808
OC_GW_OW-8BK_20170808	OC_GW_OW-12N_20170808
OC_GW_TB_20170808	

SDG 440-189911-1

OC_GW_OW-10_20170809	OC_GW_OW-1B_20170809
OC_GW_OW-1BK_20170809	OC_GW_OW-1BN_20170809
OC_GW_TB_20170809	

SDG 440-189912-1

OC_GW_PZ-9_20170809

SDG 440-190083-1

OC_GW_OW-9_20170810	OC_GW_OW-11_20170810
OC_GW_OW-12_20170811	OC_GW_OW-9K_20170810
OC_GW_OW-11N_20170810	OC_GW_TB_20170810



Based on the validation effort, the following data qualifiers were applied:

- The results for methylene chloride in OC_GW_OW-9_20170810, OC_GW_OW-11_20170810, OC_GW_OW-12_20170811 and OC_GW_OW-9K_20170810 were qualified as not detected (U) at the reporting limit or reported value, whichever is greater.
- The results for acetone in OC_GW_OW-11N_20170810 and OC_GW_OW-1BN_20170809 were qualified as estimated (J+).

All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section XIV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII.

This report should be considered part of the data package for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA SW846 Method 8260B. These methodologies do not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review.

ddms' validation was performed, to the extent possible, in conformance with the "Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010", ddms SOP ECS-003, and the analytical method. Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

NJ The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.



All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting sample collection dates and receipt dates as indicated below.

SDG	Collection Date(s)	Receipt Date(s)	Analysis Date(s)
440-189727-1	8/7/2017	8/7/2017	8/9/2017 8/10/2017 8/11/2017 8/14/2017
440-189818-1	8/8/2017	8/8/2017	8/10/2017 8/11/2017 8/14/2017
440-189911-1	8/9/2017	8/9/2017	8/11/2017
440-189912-1	8/9/2017	8/9/2017	8/11/2017
440-190083-1	8/10/2017	8/11/2017	8/14/2017 8/15/2017

The temperatures of the coolers upon receipt at the laboratory were within acceptance limits (acceptable range is 6 °C ±2 °C). Documentation of proper pH was not included in the data packages; however, all samples were analyzed within seven days required for samples not preserved.

II. GC/MS Instrument Performance Check

Bromofluorobenzene (BFB) instrument performance checks were analyzed at the appropriate frequency. All the performance checks associated with samples were fully documented and were acceptable.

III. Calibration

A. Initial Calibration (IC)

Summary results for four initial calibrations (ICs) were reported in support of the sample analyses:

- GCMS58 – 6/7/2017, 6/8/2017, 7/23/2017
- GCMS92 – 7/20/2017, 7/23/2017
- GCSM32 – 8/10/2017
- GCMS59 – 8/9/2017, 8/10/2017

Although more compounds than were specifically applicable to these analyses were reported, only project-specified target analytes were reviewed.

Documentation of all the individual IC standards was present in the data package and relative response factors (RRFs) as well as percent relative standard deviation (%RSD) values were accurately reported. All reported %RSD values were below the maximum acceptance limit of 15 percent or an alternate calibration approach was utilized, as defined in the analytical method and project-specific QAPP. Correlation coefficients were acceptable (>0.99). All average RRF values were acceptable.

Initial calibration verifications (ICV) were performed following each IC and percent differences (%D) were acceptable.

B. Continuing Calibration (CC)

Six continuing calibration (CC) standards were run in support of the sample analyses. Documentation was present in the data package, and the percent differences (%Ds) were acceptable (<20%D) with the exceptions listed below. Where the response in the CC was high and the compound was not detected in the associated samples, no qualification was warranted, and they are not discussed.

IV. Blanks

A laboratory method blank was reported for each analytical batch. No target analytes were detected in the method blanks. Five trip blanks were submitted. Methylene chloride (0.99 ug/L) was detected in OC_GW_TB_20170810. The results for methylene chloride in OC_GW_OW-9_20170810, OC_GW_OW-11_20170810, OC_GW_OW-12_20170811 and OC_GW_OW-9K_20170810 were qualified as not detected (U) at the reporting limit or reported value, whichever is greater, due to trip blank contamination.

V. Surrogate Compound Recovery

Recoveries of all of the surrogate compounds were correctly calculated, accurately reported, and within data validation acceptance limits (70-130%R).

VI. Spike Analysis

A. Laboratory Control Samples (LCS/LCSD)

An LCS or LCS/LCSD pair was analyzed each day of sample analysis. All percent recoveries and relative percent differences (RPD) were acceptable (70-130%R, 15%RPD) except for acetone (134%R) in the LCSD associated with sample OC_GW_OW-11N_20170810. The result for acetone in OC_GW_OW-11N_20170810 was qualified as estimated (J+) due to high LCSD recovery.

B. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Site specific MS/MSD analyses were performed on the following samples:

- OC_GW_DPE-11D_20170807
- OC_GW_DPE-5_20170807
- OC_GW_OW-3B_20170808
- OC_GW_OW-10_20170809
- OC_GW_OW-11_20170810

All percent recoveries and relative percent differences (RPD) were acceptable with the following exceptions:

- OC_GW_OW-10_20170809 – Acetone (147 / 134%R). The result for acetone in OC_GW_OW-1BN_20170809 was qualified as estimated (J+) and may be biased high due to high MS/MSD recoveries.
- OC_GW_OW-11_20170810 - Tetrachloroethene (59 / 40%R). The concentration of tetrachloroethene in the unspiked sample was more than four times greater than the concentration spiked in the MS and MSD and a meaningful recovery is not expected. No qualification of sample results was made based on the low recoveries for tetrachloroethene.

Where the MS or MSD recovery was high and the compound was not detected in the associated samples, no qualification was warranted, and they are not discussed above.

VII. Field Duplicate

The following samples were submitted as field duplicates:

- OC_GW_OW-8B_20170808/ OC_GW_OW-8BK_20170808
- OC_GW_OW-1B_20170809 / OC_GW_OW-1BK_20170809
- OC_GW_OW-9_20170810 / OC_GW_OW-9K_20170810

Precision between paired samples was acceptable (<20%RPD).

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses.

IX. Target Compound Identification

An acceptable mass spectrum was provided for each target analyte detected in the samples receiving full validation. Analyte-specific reporting limits are equal to the lowest standard in the calibration range and are well supported by the IC (see Section III).

X. Compound Quantitation and Reporting Limits

Target compound concentrations and reporting limits (RLs) were correctly calculated and accurately reported for the samples and spike samples associated with the full validation effort.

XI. Tentatively Identified Compounds (TIC)

Although TICs are not part of the analytical requirement, they were reported by the laboratory. The TIC reported in OC_GW_DPE-9_20170807 at a retention time of 8.97 minutes is tetrachloroethene. The result from the TIC summary in this sample for tetrachloroethene should not be used because this compound was reported as a target compound.

XII. System Performance

The analytical system appears to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

No documentation issues were observed during the validation effort.

XIV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- The results for methylene chloride in OC_GW_OW-9_20170810, OC_GW_OW-11_20170810, OC_GW_OW-12_20170811 and OC_GW_OW-9K_20170810 were qualified as not detected (U) at the reporting limit or reported value, whichever is greater, due to trip blank contamination.
- The result for acetone in OC_GW_OW-11N_20170810 was qualified as estimated (J+) due to high LCSD recovery.
- The result for acetone in OC_GW_OW-1BN_20170809 was qualified as estimated (J+) and may be biased high due to high MS/MSD recoveries.



All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section XIII.

This validation report should be considered part of the data package for all future distributions of the volatiles data.



ATTACHMENT A

DATA SUMMARY FORMS
Volatiles in Water

**440-189727-1
440-189818-1
440-189911-1
440-189912-1
440-190083-1**

Data Summary Form
Omega Chemical
Groundwaters (ug/L)

Lab No.: 440-189727-1
Sampling date: 8/7/2017

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_DPE-10D_20170807	OC_GW_DPE-11D_20170807	OC_GW_DPE-13D_20170807	OC_GW_DPE-4_20170807
RL	Lab Sample ID	440-189727-2	440-189727-1	440-189727-3	440-189727-7
RL	Dilution Factor	2,10	2, 10	1	2, 10
1	1,1,1,2-Tetrachloroethane				
1	1,1,1-Trichloroethane (TCA)				
1	1,1,2,2-Tetrachloroethane				
1	1,1,2-Trichloroethane		0.74	J	2.3
1	1,1-Dichloroethane	0.74	J	2.2	0.75
1	1,1-Dichloroethene	85		140	21
1	1,1-Dichloropropene				
1	1,2,3-Trichlorobenzene				
1	1,2,3-Trichloropropane				
1	1,2,4-Trichlorobenzene				
1	1,2,4-Trimethylbenzene				
5	1,2-Dibromo-3-chloropropane				
1	1,2-Dibromoethane (EDB)				
1	1,2-Dichlorobenzene				
1	1,2-Dichloroethane	3.6	12	3.1	9.4
1	1,2-Dichloropropane				
1	1,3,5-Trimethylbenzene				
1	1,3-Dichlorobenzene				
1	1,3-Dichloropropane				
1	1,4-Dichlorobenzene				
1	2,2-Dichloropropane				
1	2-Chlorotoluene				
1	4-Chlorotoluene				
10	Acetone				
0.5	Benzene				
1	Bromobenzene				
1	Bromochloromethane				
1	Bromodichloromethane				
1	Bromoform				
1	Bromomethane				
0.5	Carbon tetrachloride				
1	Chlorobenzene				
1	Chloroethane				
1	Chloroform	19	73		12
1	Chloromethane				
1	cis-1,2-Dichloroethene				
0.5	cis-1,3-Dichloropropene				
1	Dibromochloromethane				
1	Dibromomethane				
1	Ethylbenzene				
1	Freon 11	44	51		3.7
5	Freon 113	150	150	11	61
1	Freon 12				
1	Hexachlorobutadiene				
250	Isopropyl Alcohol (Isopropanol)				
1	Isopropylbenzene				
1	m,p-Xylene				
1	Methyl Tert-Butyl Ether				
5	Methylene chloride				
1	Naphthalene				
1	N-butylbenzene				
1	o-Xylene				
1	p-Isopropyltoluene				
1	Propylbenzene				
1	sec-Butylbenzene				
1	Styrene			0.3	J
1	tert-Butylbenzene				
1	Tetrachloroethene (PCE)	660	1100	47	660
1	Toluene				
1	trans-1,2-Dichloroethene		0.89	J	
0.5	trans-1,3-Dichloropropene				
1	Trichloroethene (TCE)	64	91	15	23
0.5	Vinyl chloride				

Data Summary Form
Omega Chemical
Groundwaters (ug/L)

Lab No.: 440-189727-1
Sampling date: 8/7/2017

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_DPE-5_20170807	OC_GW_DPE-7D_20170807	OC_GW_DPE-8_20170807	OC_GW_DPE-9_20170807
Lab Sample ID		440-189727-6	440-189727-5	440-189727-4	440-189727-8
RL	Dilution Factor	1	1	1	1, 5
1	1,1,1,2-Tetrachloroethane				
1	1,1,1-Trichloroethane (TCA)				
1	1,1,2,2-Tetrachloroethane				
1	1,1,2-Trichloroethane				0.47 J
1	1,1-Dichloroethane				0.63 J
1	1,1-Dichloroethene	30	33	1.6	35
1	1,1-Dichloropropene				
1	1,2,3-Trichlorobenzene				
1	1,2,3-Trichloropropane				
1	1,2,4-Trichlorobenzene				
1	1,2,4-Trimethylbenzene				
5	1,2-Dibromo-3-chloropropane				
1	1,2-Dibromoethane (EDB)				
1	1,2-Dichlorobenzene				
1	1,2-Dichloroethane	0.93	J	0.58	J 6.2
1	1,2-Dichloropropane				
1	1,3,5-Trimethylbenzene				
1	1,3-Dichlorobenzene				
1	1,3-Dichloropropane				
1	1,4-Dichlorobenzene				
1	2,2-Dichloropropane				
1	2-Chlorotoluene				
1	4-Chlorotoluene				
10	Acetone				
0.5	Benzene				
1	Bromobenzene				
1	Bromochloromethane				
1	Bromodichloromethane				
1	Bromoform				
1	Bromomethane				
0.5	Carbon tetrachloride				
1	Chlorobenzene				
1	Chloroethane				
1	Chloroform	5.1	0.29	J 1.8	21
1	Chloromethane				
1	cis-1,2-Dichloroethene				
0.5	cis-1,3-Dichloropropene				
1	Dibromochloromethane				
1	Dibromomethane				
1	Ethylbenzene				
1	Freon 11	7.7	12	2.7	19
5	Freon 113	9.1	28	24	56
1	Freon 12				
1	Hexachlorobutadiene				
250	Isopropyl Alcohol (Isopropanol)				
1	Isopropylbenzene				
1	m,p-Xylene				
1	Methyl Tert-Butyl Ether				
5	Methylene chloride				
1	Naphthalene				
1	N-butylbenzene				
1	o-Xylene				
1	p-Isopropyltoluene				
1	Propylbenzene				
1	sec-Butylbenzene				
1	Styrene				
1	tert-Butylbenzene				
1	Tetrachloroethene (PCE)	160	120	73	480
1	Toluene				
1	trans-1,2-Dichloroethene				
0.5	trans-1,3-Dichloropropene				
1	Trichloroethene (TCE)	12	39	5.6	28
0.5	Vinyl chloride				

Data Summary Form
Omega Chemical
Groundwaters (ug/L)

Lab No.: 440-189727-1
Sampling date: 8/7/2017

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_EW-3_20170807	OC_GW_EW-4_20170807	OC_GW_EW-5_20170807	OC_GW_TB1_20170807
Lab Sample ID		440-189727-13	440-189727-10	440-189727-9	440-189727-11
RL	Dilution Factor	1	1	1	1
1	1,1,1,2-Tetrachloroethane				
1	1,1,1-Trichloroethane (TCA)				
1	1,1,2,2-Tetrachloroethane				
1	1,1,2-Trichloroethane				
1	1,1-Dichloroethane				
1	1,1-Dichloroethene	97	66	25	
1	1,1-Dichloropropene				
1	1,2,3-Trichlorobenzene				
1	1,2,3-Trichloropropane				
1	1,2,4-Trichlorobenzene				
1	1,2,4-Trimethylbenzene				
5	1,2-Dibromo-3-chloropropane				
1	1,2-Dibromoethane (EDB)				
1	1,2-Dichlorobenzene				
1	1,2-Dichloroethane				
1	1,2-Dichloropropane				
1	1,3,5-Trimethylbenzene				
1	1,3-Dichlorobenzene				
1	1,3-Dichloropropane				
1	1,4-Dichlorobenzene				
1	2,2-Dichloropropane				
1	2-Chlorotoluene				
1	4-Chlorotoluene				
10	Acetone				
0.5	Benzene				
1	Bromobenzene				
1	Bromochloromethane				
1	Bromodichloromethane				
1	Bromoform				
1	Bromomethane				
0.5	Carbon tetrachloride				
1	Chlorobenzene				
1	Chloroethane				
1	Chloroform	2.6			
1	Chloromethane				
1	cis-1,2-Dichloroethene	2			
0.5	cis-1,3-Dichloropropene				
1	Dibromochloromethane				
1	Dibromomethane				
1	Ethylbenzene				
1	Freon 11	33	29	64	
5	Freon 113	54	44	90	
1	Freon 12				
1	Hexachlorobutadiene				
250	Isopropyl Alcohol (Isopropanol)				
1	Isopropylbenzene				
1	m,p-Xylene				
1	Methyl Tert-Butyl Ether				
5	Methylene chloride				
1	Naphthalene				
1	N-butylbenzene				
1	o-Xylene				
1	p-Isopropyltoluene				
1	Propylbenzene				
1	sec-Butylbenzene				
1	Styrene				
1	tert-Butylbenzene				
1	Tetrachloroethene (PCE)	170	59	24	
1	Toluene				
1	trans-1,2-Dichloroethene				
0.5	trans-1,3-Dichloropropene				
1	Trichloroethene (TCE)	22	7	3.3	
0.5	Vinyl chloride				

Lab No.: 440-189727-1
Sampling date: 8/7/2017

Data Summary Form
Omega Chemical
Groundwaters (ug/L)

ddms Project No.: 1547-3139C

Field Sample ID	OC_GW_TB2_20170807
Lab Sample ID	440-189727-12
RL	Dilution Factor
	1
1	1,1,1,2-Tetrachloroethane
1	1,1,1-Trichloroethane (TCA)
1	1,1,2,2-Tetrachloroethane
1	1,1,2-Trichloroethane
1	1,1-Dichloroethane
1	1,1-Dichloroethene
1	1,1-Dichloropropene
1	1,2,3-Trichlorobenzene
1	1,2,3-Trichloropropane
1	1,2,4-Trichlorobenzene
1	1,2,4-Trimethylbenzene
5	1,2-Dibromo-3-chloropropane
1	1,2-Dibromoethane (EDB)
1	1,2-Dichlorobenzene
1	1,2-Dichloroethane
1	1,2-Dichloropropane
1	1,3,5-Trimethylbenzene
1	1,3-Dichlorobenzene
1	1,3-Dichloropropane
1	1,4-Dichlorobenzene
1	2,2-Dichloropropane
1	2-Chlorotoluene
1	4-Chlorotoluene
10	Acetone
0.5	Benzene
1	Bromobenzene
1	Bromochloromethane
1	Bromodichloromethane
1	Bromoform
1	Bromomethane
0.5	Carbon tetrachloride
1	Chlorobenzene
1	Chloroethane
1	Chloroform
1	Chloromethane
1	cis-1,2-Dichloroethene
0.5	cis-1,3-Dichloropropene
1	Dibromochloromethane
1	Dibromomethane
1	Ethylbenzene
1	Freon 11
5	Freon 113
1	Freon 12
1	Hexachlorobutadiene
250	Isopropyl Alcohol (Isopropanol)
1	Isopropylbenzene
1	m,p-Xylene
1	Methyl Tert-Butyl Ether
5	Methylene chloride
1	Naphthalene
1	N-butylbenzene
1	o-Xylene
1	p-Isopropyltoluene
1	Propylbenzene
1	sec-Butylbenzene
1	Styrene
1	tert-Butylbenzene
1	Tetrachloroethene (PCE)
1	Toluene
1	trans-1,2-Dichloroethene
0.5	trans-1,3-Dichloropropene
1	Trichloroethene (TCE)
0.5	Vinyl chloride

Datq Summary Form
Omega Chemical
Groundwaters
(ug/L)

Lab No.: 440-189818-1
Sampling Date: 8/8/2017

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_OW-12N_20170808	OC_GW_OW-3B_20170808	OC_GW_OW-88_20170808	OC_GW_OW-8BK_20170808
Lab Sample ID		440-189818-4	440-189818-1	440-189818-2	440-189818-3
RL	Dilution Factor	1	1	1	1
1	1,1,1,2-Tetrachloroethane				
1	1,1,1-Trichloroethane (TCA)				
1	1,1,2,2-Tetrachloroethane				
1	1,1,2-Trichloroethane				
1	1,1-Dichloroethane				
1	1,1-Dichloroethene				
1	1,1-Dichloropropene				
1	1,2,3-Trichlorobenzene				
1	1,2,3-Trichloropropane				
1	1,2,4-Trichlorobenzene				
1	1,2,4-Trimethylbenzene				
5	1,2-Dibromo-3-chloropropane				
1	1,2-Dibromoethane (EDB)				
1	1,2-Dichlorobenzene				
1	1,2-Dichloroethane				
1	1,2-Dichloropropene				
1	1,3,5-Trimethylbenzene				
1	1,3-Dichlorobenzene				
1	1,3-Dichloropropane				
1	1,4-Dichlorobenzene				
1	2,2-Dichloropropane				
1	2-Chlorotoluene				
1	4-Chlorotoluene				
10	Acetone	11			
0.5	Benzene				
1	Bromobenzene				
1	Bromochloromethane				
1	Bromodichloromethane				
1	Bromoform				
1	Bromomethane				
0.5	Carbon tetrachloride				
1	Chlorobenzene				
1	Chloroethane				
1	Chloroform				
1	Chloromethane				
1	cis-1,2-Dichloroethene				
0.5	cis-1,3-Dichloropropene				
1	Dibromochloromethane				
1	Dibromomethane				
1	Ethylbenzene				
1	Freon 11				
5	Freon 113				
1	Freon 12				
1	Hexachlorobutadiene				
250	Isopropyl Alcohol (isopropanol)				
1	Isopropylbenzene				
1	m,p-Xylene				
1	Methyl Tert-Butyl Ether				
5	Methylene chloride				
1	Naphthalene				
1	N-butylbenzene				
1	o-Xylene				
1	p-Isopropyltoluene				
1	Propylbenzene				
1	sec-Butylbenzene				
1	Styrene				
1	tert-Butylbenzene				
1	Tetrachloroethene (PCE)	0.35	J	7.7	6.3
1	Toluene				
1	trans-1,2-Dichloroethene				
0.5	trans-1,3-Dichloropropene				
1	Trichloroethene (TCE)				
0.5	Vinyl chloride				

Lab No.: 440-189818-1
Sampling Date: 8/8/2017

Datq Summary Form
Omega Chemical
Groundwaters
(ug/L)

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_TB_20170808
Lab Sample ID		440-189818-5
RL	Dilution Factor	1
1	1,1,1,2-Tetrachloroethane	
1	1,1,1-Trichloroethane (TCA)	
1	1,1,2,2-Tetrachloroethane	
1	1,1,2-Trichloroethane	
1	1,1-Dichloroethane	
1	1,1-Dichloroethene	
1	1,1-Dichloropropene	
1	1,2,3-Trichlorobenzene	
1	1,2,3-Trichloropropane	
1	1,2,4-Trichlorobenzene	
1	1,2,4-Trimethylbenzene	
5	1,2-Dibromo-3-chloropropane	
1	1,2-Dibromoethane (EDB)	
1	1,2-Dichlorobenzene	
1	1,2-Dichloroethane	
1	1,2-Dichloropropene	
1	1,3,5-Trimethylbenzene	
1	1,3-Dichlorobenzene	
1	1,3-Dichloropropane	
1	1,4-Dichlorobenzene	
1	2,2-Dichloropropane	
1	2-Chlorotoluene	
1	4-Chlorotoluene	
10	Acetone	
0.5	Benzene	
1	Bromobenzene	
1	Bromochloromethane	
1	Bromodichloromethane	
1	Bromoform	
1	Bromomethane	
0.5	Carbon tetrachloride	
1	Chlorobenzene	
1	Chloroethane	
1	Chloroform	
1	Chloromethane	
1	cis-1,2-Dichloroethene	
0.5	cis-1,3-Dichloropropene	
1	Dibromochloromethane	
1	Dibromomethane	
1	Ethylbenzene	
1	Freon 11	
5	Freon 113	
1	Freon 12	
1	Hexachlorobutadiene	
250	Isopropyl Alcohol (isopropanol)	
1	Isopropylbenzene	
1	m,p-Xylene	
1	Methyl Tert-Butyl Ether	
5	Methylene chloride	
1	Naphthalene	
1	N-butylbenzene	
1	o-Xylene	
1	p-Isopropyltoluene	
1	Propylbenzene	
1	sec-Butylbenzene	
1	Styrene	
1	tert-Butylbenzene	
1	Tetrachloroethene (PCE)	
1	Toluene	
1	trans-1,2-Dichloroethene	
0.5	trans-1,3-Dichloropropene	
1	Trichloroethene (TCE)	
0.5	Vinyl chloride	

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

Lab No.: 440-189911-1
Sampling Date: 8/9/2017

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_OW-10_20170809	OC_GW_OW-1B_20170809	OC_GW_OW-1BK_20170809	OC_GW_OW-1BN_20170809
RL	Lab Sample ID	440-189911-1	440-189911-2	440-189911-3	440-189911-4
	Dilution Factor	1	1	1	1
1	1,1,1,2-Tetrachloroethane				
1	1,1,1-Trichloroethane (TCA)				
1	1,1,2,2-Tetrachloroethane				
1	1,1,2-Trichloroethane				
1	1,1-Dichloroethane				
1	1,1-Dichloroethene	20			
1	1,1-Dichloropropene				
1	1,2,3-Trichlorobenzene				
1	1,2,3-Trichloropropane				
1	1,2,4-Trichlorobenzene				
1	1,2,4-Trimethylbenzene				
5	1,2-Dibromo-3-chloropropane				
1	1,2-Dibromoethane (EDB)				
1	1,2-Dichlorobenzene				
1	1,2-Dichloroethane				
1	1,2-Dichloropropane				
1	1,3,5-Trimethylbenzene				
1	1,3-Dichlorobenzene				
1	1,3-Dichloropropane				
1	1,4-Dichlorobenzene				
1	2,2-Dichloropropane				
1	2-Chlorotoluene				
1	4-Chlorotoluene				
10	Acetone				10 J+
0.5	Benzene				
1	Bromobenzene				
1	Bromoform				
1	Bromomethane				
0.5	Carbon tetrachloride				
1	Chlorobenzene				
1	Chloroethane				
1	Chloroform				
1	Chloromethane				
1	cis-1,2-Dichloroethene				
0.5	cis-1,3-Dichloropropene				
1	Dibromochloromethane				
1	Dibromomethane				
1	Ethylbenzene				
1	Freon 11	4.6	0.3	J	0.36 J
5	Freon 113	7.1	1.2	J	1.2 J
1	Freon 12				
1	Hexachlorobutadiene				
250	Isopropyl Alcohol (Isopropanol)				
1	Isopropylbenzene				
1	m,p-Xylene				
1	Methyl Tert-Butyl Ether				
5	Methylene chloride				
1	Naphthalene				
1	N-butylbenzene				
1	o-Xylene				
1	p-Isopropyltoluene				
1	Propylbenzene				
1	sec-Butylbenzene				
1	Styrene				
1	tert-Butylbenzene				
1	Tetrachloroethene (PCE)	37	6.1		6.4
1	Toluene				
1	trans-1,2-Dichloroethene				
0.5	trans-1,3-Dichloropropene				
1	Trichloroethene (TCE)	2.7			
0.5	Vinyl chloride				

Lab No.: 440-189911-1
Sampling Date: 8/9/2017

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_TB_20170809
Lab Sample ID		440-189911-5
RL	Dilution Factor	1
1	1,1,1,2-Tetrachloroethane	
1	1,1,1-Trichloroethane (TCA)	
1	1,1,2,2-Tetrachloroethane	
1	1,1,2-Trichloroethane	
1	1,1-Dichloroethane	
1	1,1-Dichloroethene	
1	1,1-Dichloropropene	
1	1,2,3-Trichlorobenzene	
1	1,2,3-Trichloropropane	
1	1,2,4-Trichlorobenzene	
1	1,2,4-Trimethylbenzene	
5	1,2-Dibromo-3-chloropropane	
1	1,2-Dibromoethane (EDB)	
1	1,2-Dichlorobenzene	
1	1,2-Dichloroethane	
1	1,2-Dichloropropane	
1	1,3,5-Trimethylbenzene	
1	1,3-Dichlorobenzene	
1	1,3-Dichloropropane	
1	1,4-Dichlorobenzene	
1	2,2-Dichloropropane	
1	2-Chlorotoluene	
1	4-Chlorotoluene	
10	Acetone	
0.5	Benzene	
1	Bromobenzene	
1	Bromochloromethane	
1	Bromodichloromethane	
1	Bromoform	
1	Bromomethane	
0.5	Carbon tetrachloride	
1	Chlorobenzene	
1	Chloroethane	
1	Chloroform	
1	Chloromethane	
1	cis-1,2-Dichloroethene	
0.5	cis-1,3-Dichloropropene	
1	Dibromochloromethane	
1	Dibromomethane	
1	Ethylbenzene	
1	Freon 11	
5	Freon 113	
1	Freon 12	
1	Hexachlorobutadiene	
250	Isopropyl Alcohol (Isopropanol)	
1	Isopropylbenzene	
1	m,p-Xylene	
1	Methyl Tert-Butyl Ether	
5	Methylene chloride	
1	Naphthalene	
1	N-butylbenzene	
1	o-Xylene	
1	p-Isopropyltoluene	
1	Propylbenzene	
1	sec-Butylbenzene	
1	Styrene	
1	tert-Butylbenzene	
1	Tetrachloroethene (PCE)	
1	Toluene	
1	trans-1,2-Dichloroethene	
0.5	trans-1,3-Dichloropropene	
1	Trichloroethene (TCE)	
0.5	Vinyl chloride	

Data Summary Form
 Omega Chemical
 Groundwaters
 (ug/L)

Lab No.: 440-189912-1
 Sampling Date: 8/9/2017

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_PZ-9_20170809	
Lab Sample ID		440-189912-1	
RL	Dilution Factor	1, 10	
1	1,1,1,2-Tetrachloroethane		
1	1,1,1-Trichloroethane (TCA)		
1	1,1,2,2-Tetrachloroethane		
1	1,1,2-Trichloroethane	1.4	
1	1,1-Dichloroethane	3.7	
1	1,1-Dichloroethene	200	
1	1,1-Dichloropropene		
1	1,2,3-Trichlorobenzene		
1	1,2,3-Trichloropropane		
1	1,2,4-Trichlorobenzene		
1	1,2,4-Trimethylbenzene		
5	1,2-Dibromo-3-chloropropane		
1	1,2-Dibromoethane (EDB)		
1	1,2-Dichlorobenzene	0.32	J
1	1,2-Dichloroethane	24	
1	1,2-Dichloropropene		
1	1,3,5-Trimethylbenzene		
1	1,3-Dichlorobenzene		
1	1,3-Dichloropropene		
1	1,4-Dichlorobenzene		
1	2,2-Dichloropropene		
1	2-Chlorotoluene		
1	4-Chlorotoluene		
10	Acetone		
0.5	Benzene	0.45	J
1	Bromobenzene		
1	Bromochloromethane		
1	Bromodichloromethane		
1	Bromoform		
1	Bromomethane		
0.5	Carbon tetrachloride		
1	Chlorobenzene		
1	Chloroethane		
1	Chloroform	130	
1	Chloromethane		
1	cis-1,2-Dichloroethene	0.93	J
0.5	cis-1,3-Dichloropropene		
1	Dibromochloromethane		
1	Dibromomethane		
1	Ethylbenzene		
1	Freon 11	160	
5	Freon 113	650	
1	Freon 12		
1	Hexachlorobutadiene		
250	Isopropyl Alcohol (Isopropanol)		
1	Isopropylbenzene		
1	m,p-Xylene		
1	Methyl Tert-Butyl Ether		
5	Methylene chloride		
1	Naphthalene		
1	N-butylbenzene		
1	o-Xylene		
1	p-Isopropyltoluene		
1	Propylbenzene		
1	sec-Butylbenzene		
1	Styrene		
1	tert-Butylbenzene		
1	Tetrachloroethene (PCE)	1400	
1	Toluene		
1	trans-1,2-Dichloroethene	2.6	
0.5	trans-1,3-Dichloropropene		
1	Trichloroethene (TCE)	120	
0.5	Vinyl chloride		

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

Lab No.: 440-190083-1
Sampling Date: 8/10/2017

ddms Project No.: 1547-3139C

	Field Sample ID	OC_GW_OW-11_20170810	OC_GW_OW-11N_20170810	OC_GW_OW-12_20170811	OC_GW_OW-9_20170810
RL	Lab Sample ID	440-190083-2	440-190083-5	440-190083-3	440-190083-1
	Dilution Factor	1	1	5, 25	5, 25
1	1,1,2-Tetrachloroethane				
1	1,1,1-Trichloroethane (TCA)			68	
1	1,1,2,2-Tetrachloroethane				
1	1,1,2-Trichloroethane				5.9
1	1,1-Dichloroethane				9.1
1	1,1-Dichloroethene	31		84	190
1	1,1-Dichloropropene				
1	1,2,3-Trichlorobenzene				
1	1,2,3-Trichloropropane				
1	1,2,4-Trichlorobenzene				
1	1,2,4-Trimethylbenzene				
5	1,2-Dibromo-3-chloropropane				
1	1,2-Dibromoethane (EDB)				
1	1,2-Dichlorobenzene			3.6	J
1	1,2-Dichloroethane			5.1	78
1	1,2-Dichloropropene				
1	1,3,5-Trimethylbenzene				
1	1,3-Dichlorobenzene				
1	1,3-Dichloropropane				
1	1,4-Dichlorobenzene				
1	2,2-Dichloropropane				
1	2-Chlorotoluene				
1	4-Chlorotoluene				
10	Acetone		21	J+	
0.5	Benzene				
1	Bromobenzene				
1	Bromochloromethane				
1	Bromodichloromethane				
1	Bromoform				
1	Bromomethane				
0.5	Carbon tetrachloride				
1	Chlorobenzene				
1	Chloroethane				
1	Chloroform	0.48	J		290
1	Chloromethane				
1	cis-1,2-Dichloroethene				18
0.5	cis-1,3-Dichloropropene				
1	Dibromochloromethane				
1	Dibromomethane				
1	Ethylbenzene				
1	Freon 11	20		42	32
5	Freon 113	58		1100	52
1	Freon 12				
1	Hexachlorobutadiene				
250	Isopropyl Alcohol (Isopropanol)		230	J	
1	Isopropylbenzene				
1	m,p-Xylene				
1	Methyl Tert-Butyl Ether				
5	Methylene chloride		U		U
1	Naphthalene				
1	N-butylbenzene				
1	o-Xylene				
1	p-Isopropyltoluene				
1	Propylbenzene				
1	sec-Butylbenzene				
1	Styrene				
1	tert-Butylbenzene				
1	Tetrachloroethene (PCE)	170		1700	2100
1	Toluene			9	
1	trans-1,2-Dichloroethene				3.5
0.5	trans-1,3-Dichloropropene				J
1	Trichloroethene (TCE)	39		210	150
0.5	Vinyl chloride				

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

Lab No.: 440-190083-1
Sampling Date: 8/10/2017

ddms Project No.: 1547-3139C

Field Sample ID		OC_GW_OW-9K_20170810		OC_GW_TB_20170810	
RL	Lab Sample ID	440-190083-4		440-190083-6	
		Dilution Factor	5, 25		1
1	1,1,1,2-Tetrachloroethane				
1	1,1,1-Trichloroethane (TCA)				
1	1,1,2,2-Tetrachloroethane				
1	1,1,2-Trichloroethane	6.5			
1	1,1-Dichloroethane	9			
1	1,1-Dichloroethene	180			
1	1,1-Dichloropropene				
1	1,2,3-Trichlorobenzene				
1	1,2,3-Trichloropropane				
1	1,2,4-Trichlorobenzene				
1	1,2,4-Trimethylbenzene				
5	1,2-Dibromo-3-chloropropane				
1	1,2-Dibromoethane (EDB)				
1	1,2-Dichlorobenzene				
1	1,2-Dichloroethane	87			
1	1,2-Dichloropropene				
1	1,3,5-Trimethylbenzene				
1	1,3-Dichlorobenzene				
1	1,3-Dichloropropane				
1	1,4-Dichlorobenzene				
1	2,2-Dichloropropane				
1	2-Chlorotoluene				
1	4-Chlorotoluene				
10	Acetone				
0.5	Benzene				
1	Bromobenzene				
1	Bromochloromethane				
1	Bromodichloromethane				
1	Bromoform				
1	Bromomethane				
0.5	Carbon tetrachloride				
1	Chlorobenzene				
1	Chloroethane				
1	Chloroform	290			
1	Chloromethane				
1	cis-1,2-Dichloroethene	16			
0.5	cis-1,3-Dichloropropene				
1	Dibromochloromethane				
1	Dibromomethane				
1	Ethylbenzene				
1	Freon 11	31			
5	Freon 113	62			
1	Freon 12				
1	Hexachlorobutadiene				
250	Isopropyl Alcohol (Isopropanol)				
1	Isopropylbenzene				
1	m,p-Xylene				
1	Methyl Tert-Butyl Ether				
5	Methylene chloride		U	0.99	J
1	Naphthalene				
1	N-butylbenzene				
1	o-Xylene				
1	p-Isopropyltoluene				
1	Propylbenzene				
1	sec-Butylbenzene				
1	Styrene				
1	tert-Butylbenzene				
1	Tetrachloroethene (PCE)	2200			
1	Toluene				
1	trans-1,2-Dichloroethene	3.1	J		
0.5	trans-1,3-Dichloropropene				
1	Trichloroethene (TCE)	150			
0.5	Vinyl chloride				



**DATA VALIDATION
FOR
SEMI-ANNUAL GROUND WATER MONITORING
OMEGA CHEMICAL SITE
WHITTIER CALIFORNIA**

**ORGANIC ANALYSIS DATA
1,4-Dioxane in Water**

Laboratory Job Nos.

**440-189727-1
440-189818-1
440-189911-1
440-189912-1
440-190083-1**

Analyses Performed By:

**Test America
Irvine, CA**

For:

**de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106**

Data Validation By:

**ddms, inc.
St. Paul, Minnesota 55108**

September 22, 2017

**1547-3139C/jlr
Omega\SVoa.docx**

EXECUTIVE SUMMARY

Validation of the 1,4-dioxane data prepared by Test America-Irvine for 22 ground water samples from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Full validation was performed on three samples (**bolded below**), which represent 10% of the total number of ground water samples received and analyzed by Test America. The data were reported by the laboratory under Laboratory Job Nos. 440-189727-1, 440-189818-1, 440-189911-1, 440-189912-1 and 440-190083-1. The following samples were reported:

SDG 440-189727-1

OC_GW_DPE-11D_20170807	OC_GW_DPE-10D_20170807
OC_GW_DPE-13D_20170807	OC_GW_DPE-8_20170807
OC_GW_DPE-7D_20170807	OC_GW_DPE-5_20170807
OC_GW_DPE-4_20170807	OC_GW_DPE-9_20170807
OC_GW_DPE-5_20170807	OC_GW_EW-4_20170807
OC_GW_EW-3_20170807	

SDG 440-189818-1

OC_GW_OW-3B_20170808	OC_GW_OW-8B_20170808
OC_GW_OW-8BK_20170808	

SDG 440-189911-1

OC_GW_OW-10_20170809	OC_GW_OW-1B_20170809
OC_GW_OW-1BK_20170809	

SDG 440-189912-1

OC_GW_PZ-9_20170809	
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SDG 440-190083-1

OC_GW_OW-9_20170810	OC_GW_OW-11_20170810
OC_GW_OW-12_20170811	OC_GW_OW-9K_20170810

Based on the validation effort, the following data qualifiers were applied:

- The results for 1,4-dioxane in all samples were qualified as estimated (J, J-, UJ).



- The results for 1,4-dioxane in OC_GW_EW-4_20170807 and OC_GW_OW-11_20170810 were qualified as estimated (J) and presumptively present (N).

All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section XIV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII. This report should be considered part of the data package for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA SW846 Method 8270C SIM. These methodologies do not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review.

ddms' validation was performed, to the extent possible, in conformance with the "Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010", ddms SOP ECS-004 and the analytical method. Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

NJ The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.



All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting sample collection dates and receipt dates as indicated below.

SDG	Collection Date(s)	Receipt Date(s)	Extraction Date	Analysis Date(s)
440-189727-1	8/7/2017	8/7/2017	8/8/2017	8/9/2017
440-189818-1	8/8/2017	8/8/2017	8/9/2017	8/10/2017
440-189911-1	8/9/2017	8/9/2017	8/10/2017	8/11/2017
440-189912-1	8/9/2017	8/9/2017	8/10/2017	8/11/2017
440-190083-1	8/10/2017 8/11/2017	8/11/2017	8/14/2017	8/15/2017

The temperatures of the coolers upon receipt at the laboratories were within acceptance limits (acceptable range is $6^{\circ}\text{C} \pm 2^{\circ}\text{C}$). The samples were extracted and analyzed as indicated above, within the hold times specified in the method.

II. GC/MS Instrument Performance Check

Decafluorotriphenylphosphine (DFTPP) instrument performance checks are not required for SIM analysis.

III. Calibration

A. Initial Calibration (IC)

Summary results for one initial calibration (IC) run on instrument GCMS05 on July 25, 2017, were reported in support of the sample analyses associated with the full validation effort. Documentation of all of the individual IC standards was present in the data package and relative response factor (RRFs) as well as percent relative standard deviation (%RSD) value were accurately reported.

B. Continuing Calibration (CC)

Continuing calibration (CC) standards were run at the appropriate frequencies. Documentation was present in the data package, and the percent differences (%Ds) were acceptable (<20%D).

IV. Blanks

A laboratory method blank was extracted and reported for each analytical batch. 1,4-Dioxane was not detected in any of the blanks.

V. Surrogate Compound Recovery

Recoveries of 1,4-dioxane-d₈ were correctly calculated and accurately reported. Because 1,4-dioxane and 1,4-dioxane-d₈ exhibit low recoveries by this method, based on professional judgment, acceptance criteria of 70 – 130% was applied. The results for 1,4-dioxane in all samples except OC_GW_OW-9K_20170810 were qualified as estimated (J-, UJ) due to low surrogate recovery.

VI. Spike Analysis

A. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Site specific MS/MSD analyses were not performed.

B. Laboratory Control Sample (LCS)

An LCS/LCSD pair were extracted with each batch of sample extractions. Because 1,4-dioxane and 1,4-dioxane-d₈ exhibit low recoveries by this method (36-120%), based on professional judgment, acceptance criteria of 70-130%, 30% RPD was applied. The results for 1,4-dioxane in OC_GW_OW-3B_20170808, OC_GW_OW-8B_20170808 and OC_GW_OW-8BK_20170808 were qualified as estimated (UJ) due to low LCS/LCSD recovery and high relative percent difference (38%) between the LCS and LCSD. The results for 1,4-dioxane in all other samples were qualified as estimated (J-, UJ) due to low LCS recoveries.

VII. Field Duplicate

The following samples were submitted as field duplicates:

- OC_GW_OW-8B_20170808 / OC_GW_OW-8BK_20170808
 - 1,4-Dioxane was not detected in the paired duplicates.
- OC_GW_OW-1B_20170809 / OC_GW_OW-1BK_20170809
 - Precision between paired samples was acceptable (<20%RPD).

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses.

IX. Target Compound Identification

The analyte-specific reporting limit is equal to the lowest standard in the calibration range and are well supported by the IC (see Section III).

For SIM analysis, ratios must be determined during initial calibration using the integrated areas for the primary and secondary ions and confirmation from their respective mass chromatograms. Identification in samples is made by verifying the ratio of the secondary ion to the primary. The results for 1,4-dioxane in OC_GW_EW-4_20170807 and OC_GW_OW-11_20170810 were qualified as estimated (J) and presumptively present (N) because the ion ratios were outside acceptance limits.

X. Compound Quantitation and Reporting Limits

Target compound concentrations and reporting limits (RLs) were correctly calculated and accurately reported for the samples and spike samples associated with the full validation effort.

XI. Tentatively Identified Compounds (TIC)

Non-target compounds were not part of the analytical requirements.

XII. System Performance

The analytical system appears to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

No documentation issue was observed during the validation of these data.

XIV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- The results for 1,4-dioxane in OC_GW_EW-4_20170807 and OC_GW_OW-11_20170810 were qualified as estimated (J) and presumptively present (N) because the ion ratios were outside acceptance limits.
- The results for 1,4-dioxane in all samples were qualified as estimated (J-, UJ) due to low surrogate and/or low LCS/LCSD recoveries.



- The results for 1,4-dioxane in all samples were qualified as estimated (J, UJ) due to high LCS/LCSD RPD.

All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section XIII.

This validation report should be considered part of the data package for all future distributions of the volatiles data.



ATTACHMENT A

DATA SUMMARY FORMS
1,4-Dioxane in Water

**440-189727-1
440-189818-1
440-189911-1
440-189912-1
440-190083-1**

Data Summary Form
 Omega Chemical
 Groundwaters
 (ug/L)

Lab No.: 440-189727-1
 Sampling Date: 8/7/2017

ddms Project No.: 1547-3139C

Field Sample ID	OC_GW_DPE-10D_20170807	OC_GW_DPE-11D_20170807	OC_GW_DPE-13D_20170807	OC_GW_DPE-4_20170807	OC_GW_DPE-5_20170807
Lab Sample ID	440-189727-2	440-189727-1	440-189727-3	440-189727-7	440-189727-6
RL	Dilution Factor	1	1	1	1
0.5	1,4-Dioxane	16	J-	44	J-
				10	J-
				75	J-
				6.9	J-

Field Sample ID	OC_GW_DPE-7D_20170807	OC_GW_DPE-8_20170807	OC_GW_DPE-9_20170807	OC_GW_EW-3_20170807	OC_GW_EW-4_20170807
Lab Sample ID	440-189727-5	440-189727-4	440-189727-8	440-189727-13	440-189727-10
RL	Dilution Factor	1	1	1	1
0.5	1,4-Dioxane	0.12	J-	8.5	J-
				37	J-
				0.55	J-
				0.1	JN

Field Sample ID	OC_GW_EW-5_20170807	
Lab Sample ID	440-189727-9	
RL	Dilution Factor	1
0.5	1,4-Dioxane	
	UJ	

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

Lab No.: 440-189818-1
Sampling date: 8/8/2017

ddms Project No.: 1547-3139C

Field Sample ID	OC_GW_OW-3B_20170808	OC_GW_OW-8B_20170808	OC_GW_OW-8BK_20170808	
Lab Sample ID	440-189818-1	440-189818-2	440-189818-3	
RL	Dilution Factor	1	1	1
0.5	1,4-Dioxane	UJ	UJ	UJ

Lab No.: 440-189911-1
Sampling Date: 8/9/2017

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

ddms Project No.: 1547-3139C

Field Sample ID	OC_GW_OW-10_20170809	OC_GW_OW-1B_20170809	OC_GW_OW-1BK_20170809				
Lab Sample ID	440-189911-1	440-189911-2	440-189911-3				
RL	Dilution Factor	1	1	1			
0.5	1,4-Dioxane	0.12	J-	0.16	J-	0.18	J-

Lab No.: 440-189912-1
Sampling Date: 8/9/2017

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

ddms Project No.: 1547-3139C

Field Sample ID	OC_GW_PZ-9_20170809		
Lab Sample ID	440-189912-1		
RL	Dilution Factor		1
0.5	1,4-Dioxane	110	J-

Data Summary Form
Omega Chemical
Groundwaters
(ug/L)

Lab No.: 440-190083-1
Sampling Date: 8/10/2017

ddms Project No.: 1547-3139C

Field Sample ID	OC_GW_OW-11_20170810	OC_GW_OW-12_20170811	OC_GW_OW-9_20170810	OC_GW_OW-9K_20170810
Lab Sample ID	440-190083-2	440-190083-3	440-190083-1	440-190083-4
RL	Dilution Factor	1	1	100
0.51	1,4-Dioxane	0.15	JN	9.4 J-
				860 J-
				790 J-

Data Quality Assessment
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2017

Sampling Event	Sampling Rationale	Frequency of Analysis	Matrix	Lab WO#	Sampling Date	Field Quality Control Samples	Level 4 Validation	Review of Laboratory QC Samples	Data Usability
SDLAC Quarterly Sampling									
Q3	Quarterly sampling of the treatment plant effluent is required per Los Angeles County Sanitation District Industrial Waste Discharge Permit Number 20039.	Quarterly	Water	190535	8/17-18/2017	Equipment blanks are not needed as sampling equipment is not used. Trip blanks and field duplicates are not needed for this compliance sampling.	No	MB, LCS/LCSD, MS/MSD, surrogates	Results for pH and dissolved Sulfide are qualified as estimated (J,UJ). These parameters are 'analyze immediately' parameters. Field measurements should be used. The result for 1,4-dioxane in Grab was qualified estimated and may be biased low (J-) due to the low recovery of the surrogate and the analyte in the LCSD pair. Results for all phenolic compounds were qualified as estimated (J, UJ) due to unacceptable LCS/LCSD %Rs and RPDs and/or surrogate recoveries. The result for benzidine was rejected (R) due to an excessively low %R in the LCS.
GWTS Process Sampling									
<u>SCAQMD Compliance</u>									
Q3	Sampling of the influent, intermediate, and effluent sample ports of the VPGAC vessels is required monthly for the SCAQMD permit.	Monthly	Air	1408	7/21/2017	Equipment blanks are not needed as sampling equipment is not used to collect the vapor samples. Trip blanks are not typically submitted with Summa canisters. Field duplicates are not needed for this compliance sampling.	No	MB, LCS/LCSD, surrogates	The TVOC results in all three samples were qualified as estimated (J) due to the inclusion of the RL for compounds that were reported as not detected. No other qualification of sample results was warranted.
				1708103	8/4/2017				The TNMOC value reported should not be used as TVOC as it includes contribution from non-target compounds. No other qualification of sample results was warranted.
				1709160	9/7/2017				The TNMOC value reported should not be used as TVOC as it includes contribution from non-target compounds. No other qualification of sample results was warranted.
<u>Treatment System Process Sampling</u>									
Q3	Analysis of the influent and effluent samples (before and after the air stripper) from the GWTS are needed to assess the performance of the treatment equipment.	Monthly (monthly for the first year of operation for the influent sample, frequency may change after 1st year); monthly for effluent sample.	Water	188803	7/21/2017	Equipment blanks are not needed as sampling equipment is not used to collect these samples from the sample ports. Field duplicates are not needed for this treatment assessment sampling. Trip blanks were analyzed with these samples and all trip blank results were nondetect.	No	MB, LCS/LCSD, MS/MSD, surrogates	The result for 1,4-dioxane in OC_SP220B_EFF_072117 was qualified estimated (J-) due to unacceptable surrogate and LCS recoveries. The result may be biased low. TVOC is a mathematical calculation and no RL or MDL value should be assigned. No data required qualification a result of the review effort.
				189638	8/4/2017				The result for 1,4-dioxane in OC_SP220B_EFF_080417 was qualified estimated (J-) due to unacceptable surrogate and LCS recoveries. The result may be biased low. TVOC is a mathematical calculation and no RL or MDL value should be assigned. No other qualification of sample results was warranted.
				191747	9/7/2017				TVOC is a mathematical calculation and no RL or MDL value should be assigned. No qualification of sample results was warranted.

Attachment F

Annual Groundwater Model Update and Particle Tracking Figures



Memorandum

To: Ed Modiano, de maximis, inc.

From: Matt Gamache, CDM Smith

Date: November 7, 2017

Subject: 2017 Omega Capture Zone Model Update

The purpose for this memorandum is to describe the 2017 updates to the groundwater flow model used to support the site conceptual model (SCM) for hydraulic containment of the OU-1 source area. The model was extended in time one year from 8/16/2016 to 8/15/2017 by incorporating groundwater data collected since the last update, which was documented in the October 26, 2016 technical memorandum titled *2016 Omega Capture Zone Model Update* (CDM Smith, 2016) for the Omega Non-Time Critical Removal Action plan (CDM Smith, 2012). The model was then used to assess hydraulic containment under December 2016, March 2017, June 2017, and August 2017 hydraulic and operating conditions. This memorandum is Attachment F to the Annual Performance Evaluation Report for the OU-1 Groundwater Containment Remedy.

The structure of the model, including the boundaries and computational grid, have remained unchanged since its development and documentation in the 2009 technical memorandum titled *Documentation of the Omega Non-Time Critical Removal Action Capture Zone Model* (CDM, 2009). As stated in the 2009 memo, the objective of the site-specific groundwater model is to evaluate the capture zone achieved by groundwater extraction within Operable Unit 1 (OU-1) or the Phase 1a area. To meet this objective, the model is necessarily larger in size than the Phase 1a area and includes data collected from outside of the Phase 1a area. As described in the EPA-approved April 19, 2007 Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System (PSVP), the primary line of evidence to evaluate system performance is hydraulic capture as demonstrated by groundwater elevation monitoring. This numerical model is used to provide supporting evidence that the groundwater elevation maps drawn from collected piezometric data accurately represent site hydraulic conditions.

The parameters updated to extend the simulation in time (but not revised for periods prior to 8/16/2016) include the chronological period of the model (extended through 8/15/2017), the number of stress periods, extraction well pumping rates, boundary head conditions, and rainfall recharge. Hydraulic conductivities assigned to the model in the vicinity of DPE-9, which are depicted in Figure F-1, were updated to provide a better calibration to measured water level elevations at DPE-9, where data from the extension period are indicative of lower horizontal

hydraulic conductivity than previously simulated. Calibration was checked by comparing model results to water level elevation data collected during the simulation period.

Simulated and measured water level elevations were compared during the heuristic model calibration process. Figures F-2 through F-27 include hydrographs comparing the simulated and observed water levels for all wells and Table F-1 presents the simulated and measured values (and the simulated minus measured values, or residual values) for each well measured during June 2017. Due to the rapid response to changes in pumping rates, calibration to data collected at active extraction wells (as shown in Figures F-19 through F-23) is more challenging than at monitoring wells located further away from the pumping center, such as OW-7 (Figure F-4), OW-9 (Figure F-6), OW-10 (Figure F-7), and OW-11 (Figure F-8).

Table F-1 - June 2017 Simulated and Measured Water Level Elevations

Well	Simulated Head (Feet NAVD88)	Measured Head (Feet NAVD88)	Residual (Feet)
DPE-03	112.2	114.6	-2.4
DPE-04	111.0	110.8	0.2
DPE-05	109.4	109.8	-0.4
DPE-08	112.4	114.4	-2.0
DPE-09	107.6	106.9	0.7
OW-1A	Dry	Dry	-
OW-2	Dry	Dry	-
OW-3A	115.5	116.9	-1.4
OW-7	Dry	Dry	-
OW-9	111.9	111.3	0.6
OW-10	115.7	116.7	-1.0
OW-11	112.3	112.2	0.1
OW-12	113.1	117.2	-4.1
PZ-1	Dry	Dry	-
PZ-2	Dry	Dry	-
PZ-3	113.2	114.7	-1.5
PZ-4	118.5	123.5	-5.0
PZ-5	121.9	119.8	2.1
PZ-6	121.8	120.6	1.2
PZ-7	115.8	118.2	-2.4
PZ-8	116.2	119.0	-2.8
PZ-9	111.8	111.4	0.4
DPE-10D	110.7	111.4	-0.6
DPE-7D	112.4	112.5	-0.1

Rainfall recharge applied to the water table in the model was varied with time according to hydrologic conditions and the observed lag times and general head boundary (GHB) heads were

modulated based on water level elevations observed at OW-7, with the associated hydraulic conductances of each GHB cell held at the originally interpolated value. Rainfall recharge was set to 1.5 inches per year from the beginning of the simulation through 9/30/2010, then 6 inches per year for the wet period through 2/28/2013, then 0.4 inches per year through 8/16/2016, and 0.7 inches per year for the 8/16/2016 through 8/15/2017 extension period associated with this model update.

Figure F-28 includes a scatter plot of observed (horizontal axis) and simulated (vertical axis) heads at the observation wells, piezometers, and DPE wells used during calibration. Deviation from the 45-degree line (shown as a red line) indicates model bias either low or high as compared to observed water levels. The root mean square error (RMS), which is the average of the squared differences in measured and simulated heads, is 1.7 feet, or 6.1% of the range of observed values. In general, the RMS should be less than 10% of the observed head range (Anderson and Woessner, 1992). Hence, model calibration is considered to be reasonable and appropriate.

Other calibration statistics are listed below:

- Mean Error (ME) = -0.20 feet; *this is the mean difference between measured and simulated heads.*
- Mean Absolute Error (MAE) = 1.3 feet; *this is the mean of the absolute value of the differences in measured and simulated heads.*
- Minimum Residual = -6.9 feet
- Maximum Residual = 5.2 feet

The model calibration fits the field data within acceptable criteria and is useable for assessment of the system capture zone.

Simulated flow direction arrows and head contours for December 2016, March 2017, June 2017, and August 2017 are shown in Figures F-29 through F-32, respectively, along with the associated simulated zone of capture by the groundwater containment remedy (GCR) and OU-1 on-site soil remedy wells. Each zone of capture represents the water that would be captured by the GCR and on-site soil remedy wells if the period (i.e., June 2017) conditions were held constant into perpetuity. Tables F-2 and F-3 below show the pumping rates of GCR wells and on-site soil remedy wells that were used to simulate flow patterns during each of the four quarters evaluated. Figure F-33 shows the June 2017 simulated head contours along with posted head residuals (simulated head minus measure head for each well in feet), which are also included in Table F-1. All of the zones of capture shown in Figures F-29 through F-33 cover the area between Putnam Street and the source area on the Omega property.

These simulated capture zones and water level contours are similar to those produced in previous annual reports and support the site conceptual model (SCM) for hydraulic containment of the OU-1 source area. These results also supplement the analyses provided in Attachment A and previous quarterly groundwater containment reviews in which groundwater elevation data is contoured (without model simulations) for the purposes of demonstrating hydraulic containment of groundwater within OU-1.

Table F-2 - GCR Pumping Rates

Well	December 2016 (gpm)	March 2017 (gpm)	June 2017 (gpm)	August 2017 (gpm)
EW-1	0	0	0	0
EW-2	0	0	0	0
EW-3	0	0	0	0
EW-4	0.01	0.02	0.01	0.01
EW-5	0.06	0.06	0.06	0.06
Total	0.07	0.08	0.07	0.07

Table F-3 - OU-1 On-Site Soil Remedy Well Pumping Rates

Well	December 2016 (gpm)	March 2017 (gpm)	June 2017 (gpm)	August 2017 (gpm)
DPE-3	0.23	0.56	0.50	0.49
DPE-4	0.64	0.82	0.58	0.57
DPE-5	0.49	0.74	0.63	0.56
DPE-8	0.42	0.56	0.33	0.40
DPE-9	1.08	0.99	1.23	1.17
DPE-10D	0	0	0.97	0
Total	2.86	3.67	4.24	3.19

References

Anderson, M.P. and Woessner, W.M., 1992. *Applied Groundwater Modeling*, Academic Press, Inc., San Diego, California, 381 p.

CDM, 2007. *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System*. April 19, 2007.

CDM, 2009. *Documentation of the Omega Non-Time Critical Removal Action Capture Zone Model*. September 14, 2009.

CDM Smith, 2012. *Omega Capture Zone Model Update*. June 1, 2012.

November 7, 2017

Page 5

CDM Smith, 2016. *2016 Omega Capture Zone Model Update*. October 26, 2016.

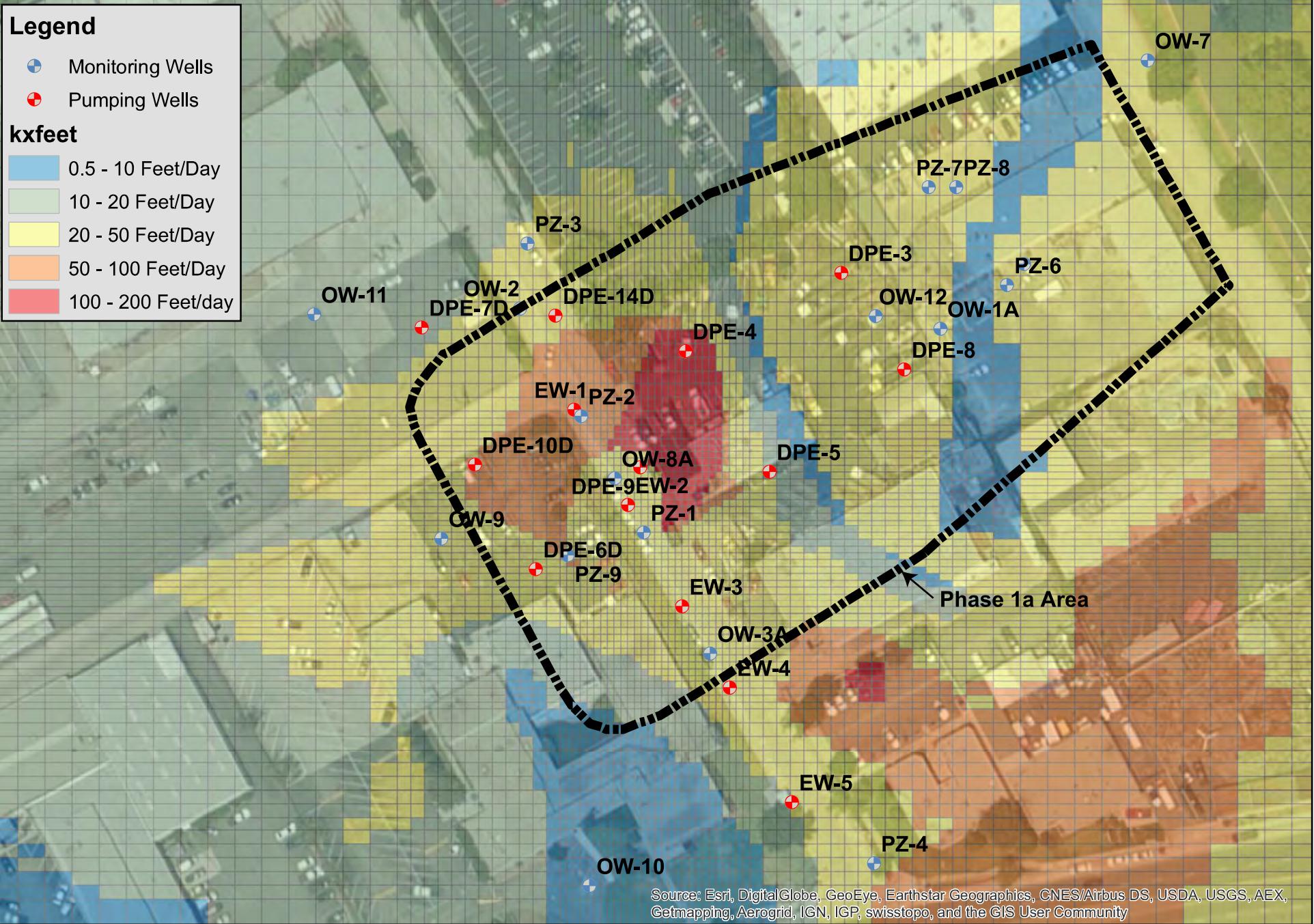


Figure F-1 - Horizontal Hydraulic Conductivity, Model Layer 1

Figure F-2
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-2

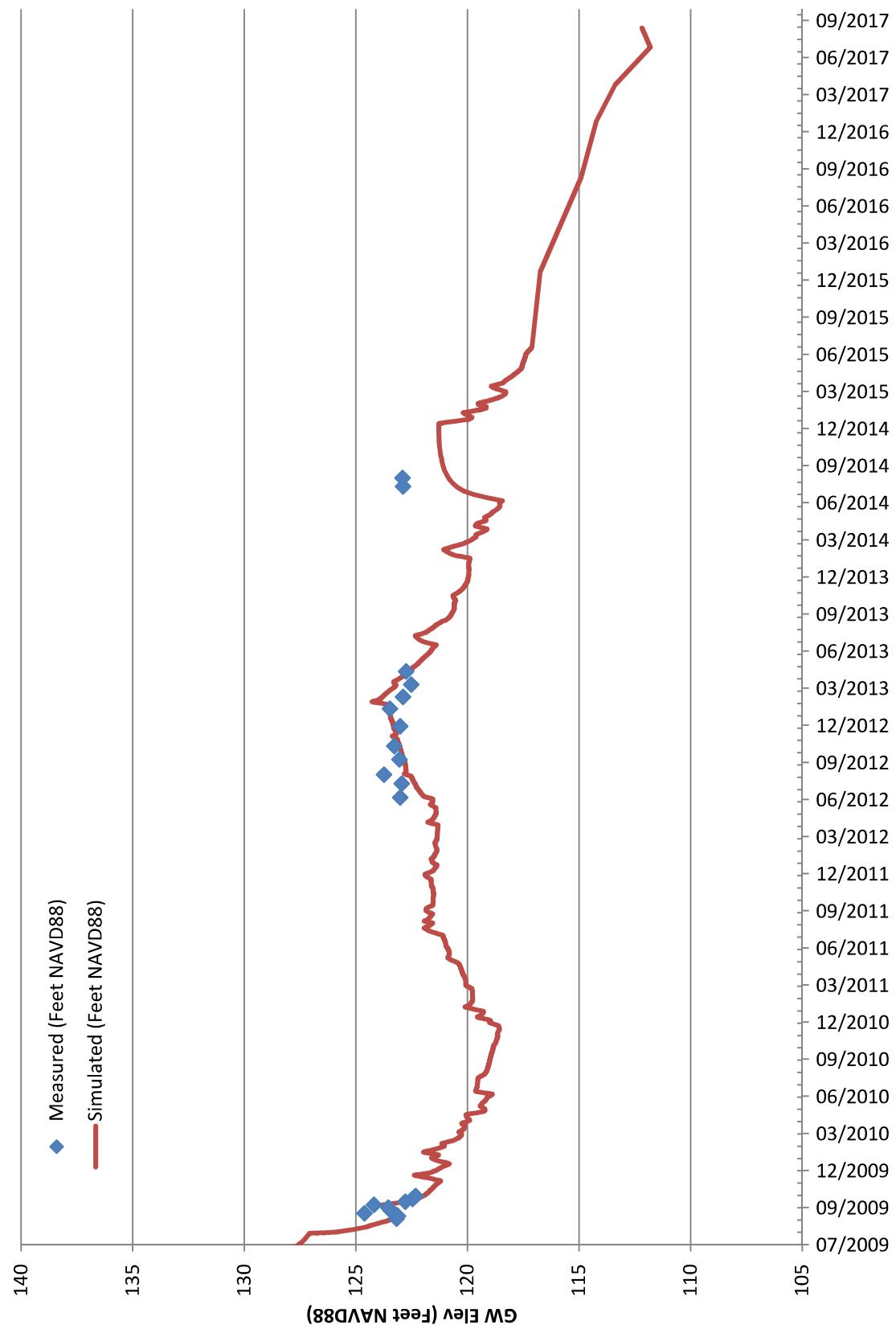


Figure F-3
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-3

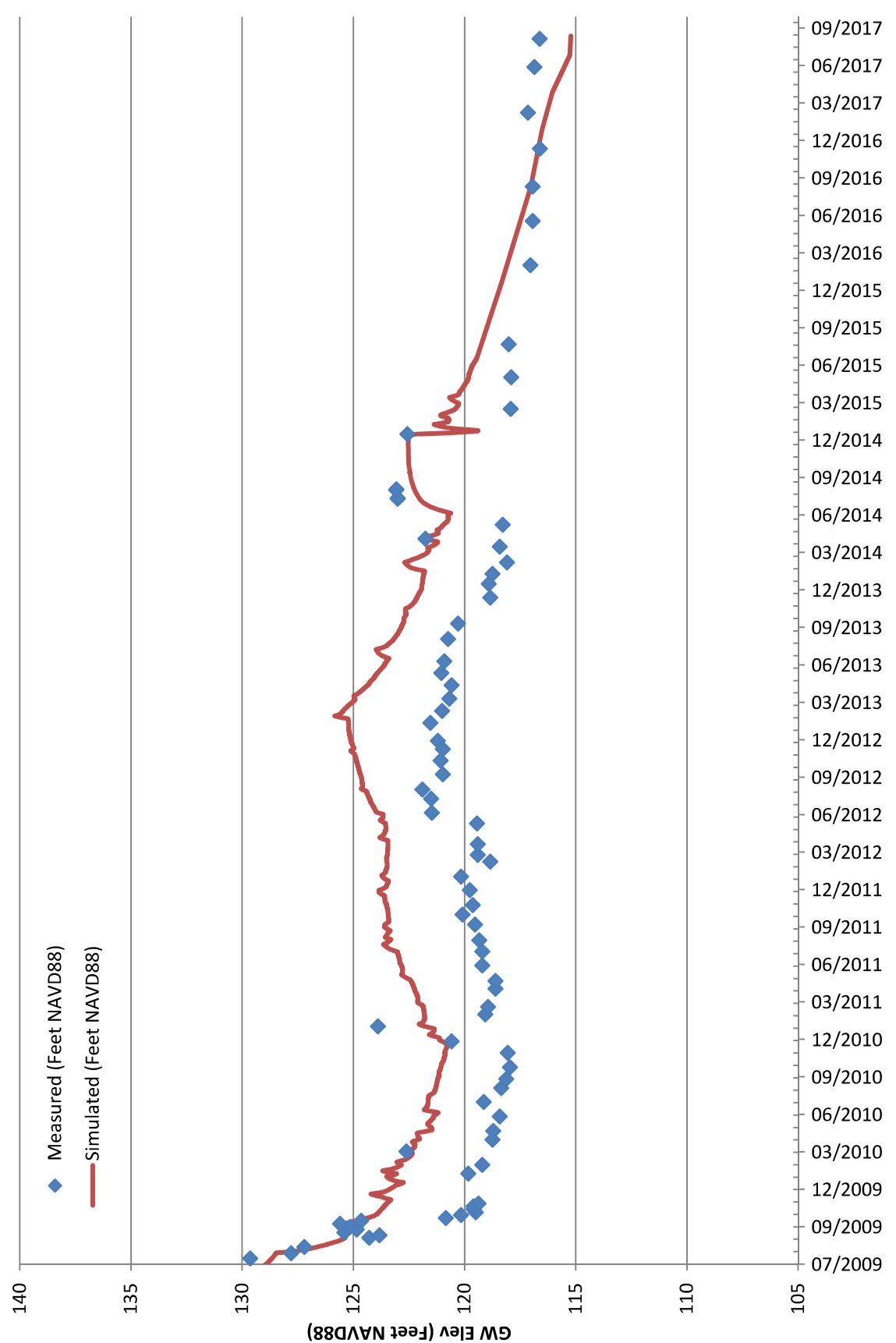


Figure F-4
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-7

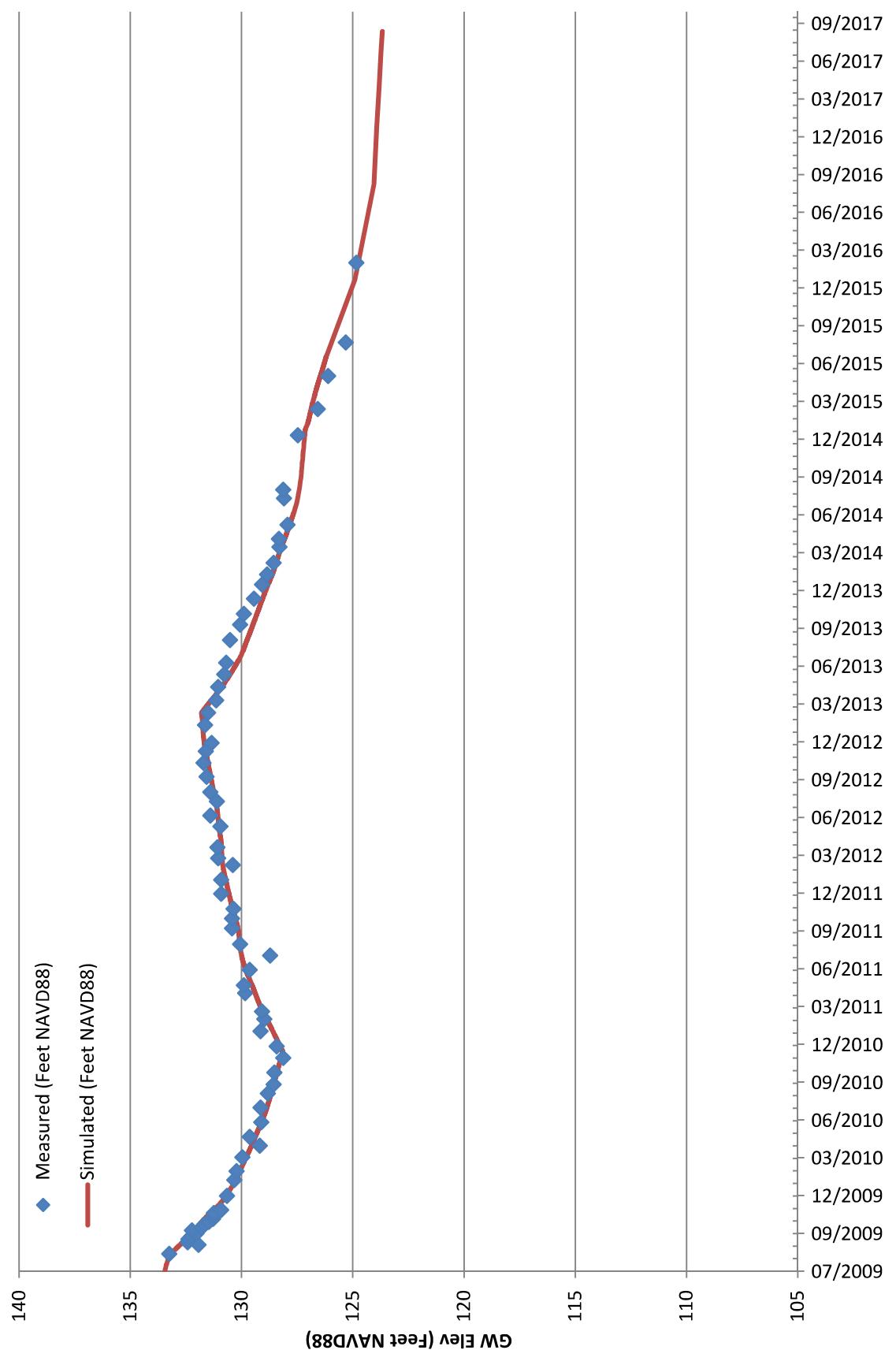


Figure F-5
Omega Chemical Facility
Capture Zone Model, Observed vs. Simulated Heads
OW-8a

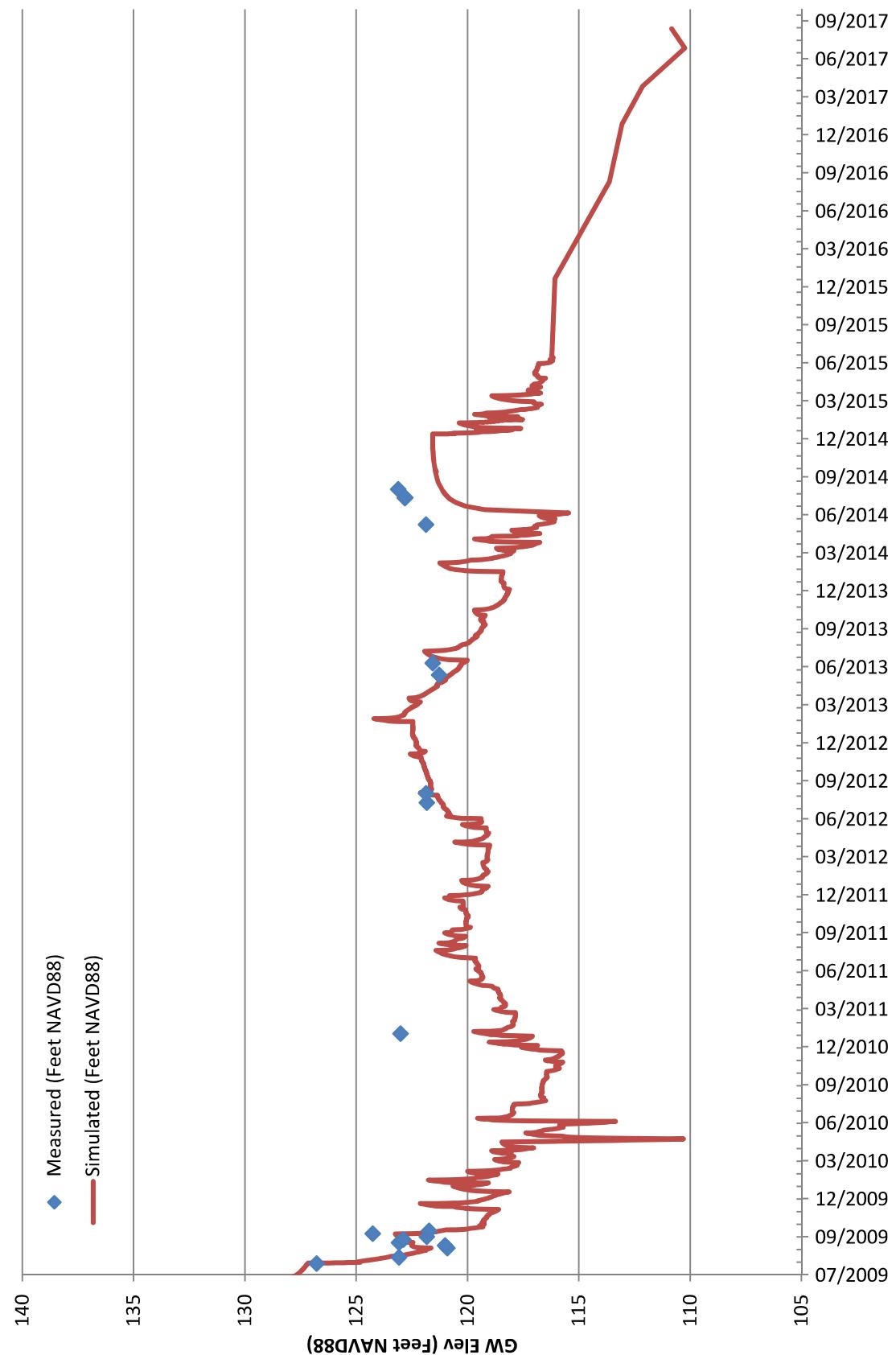


Figure F-6
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-9

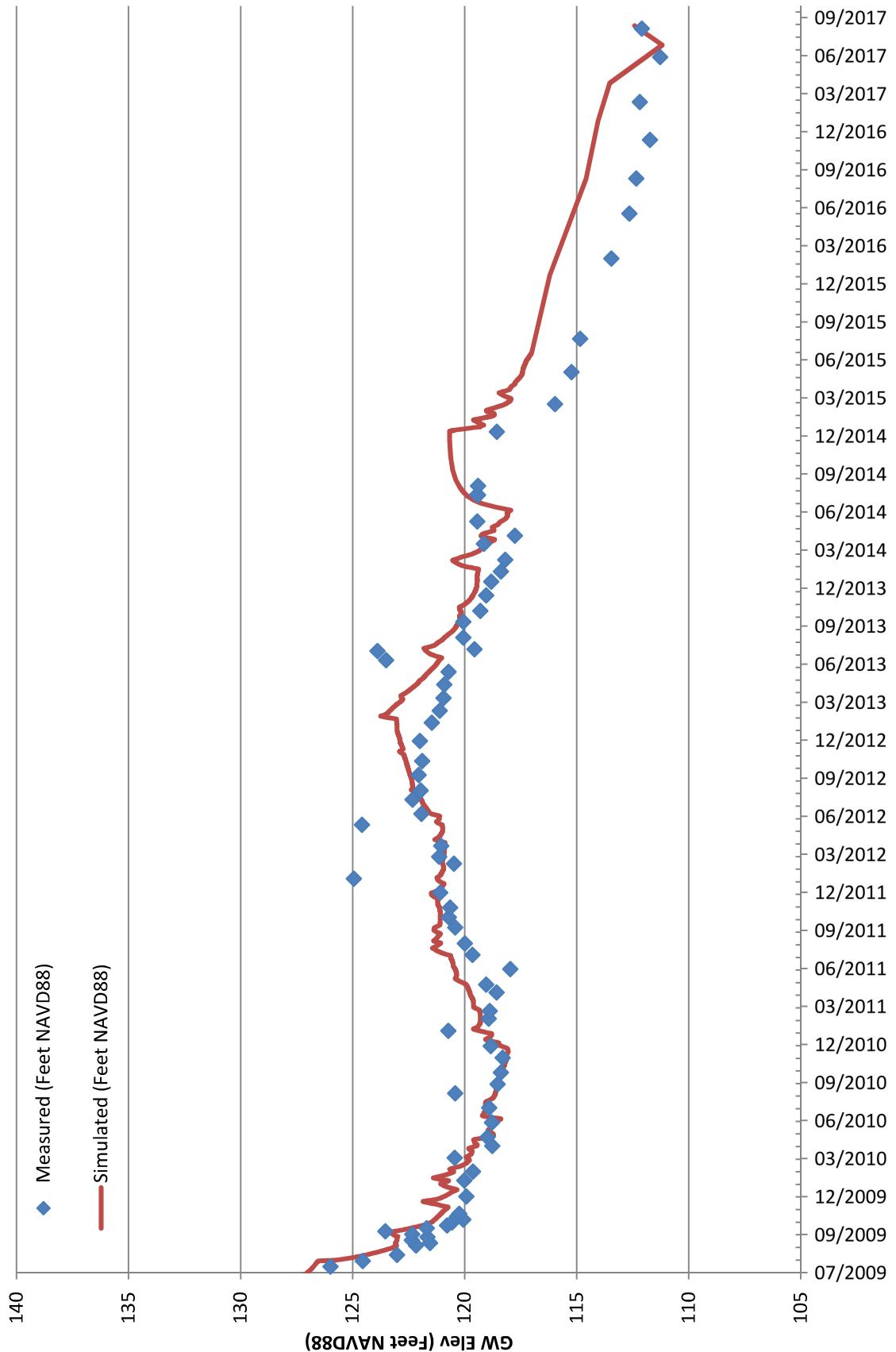


Figure F-7
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-10

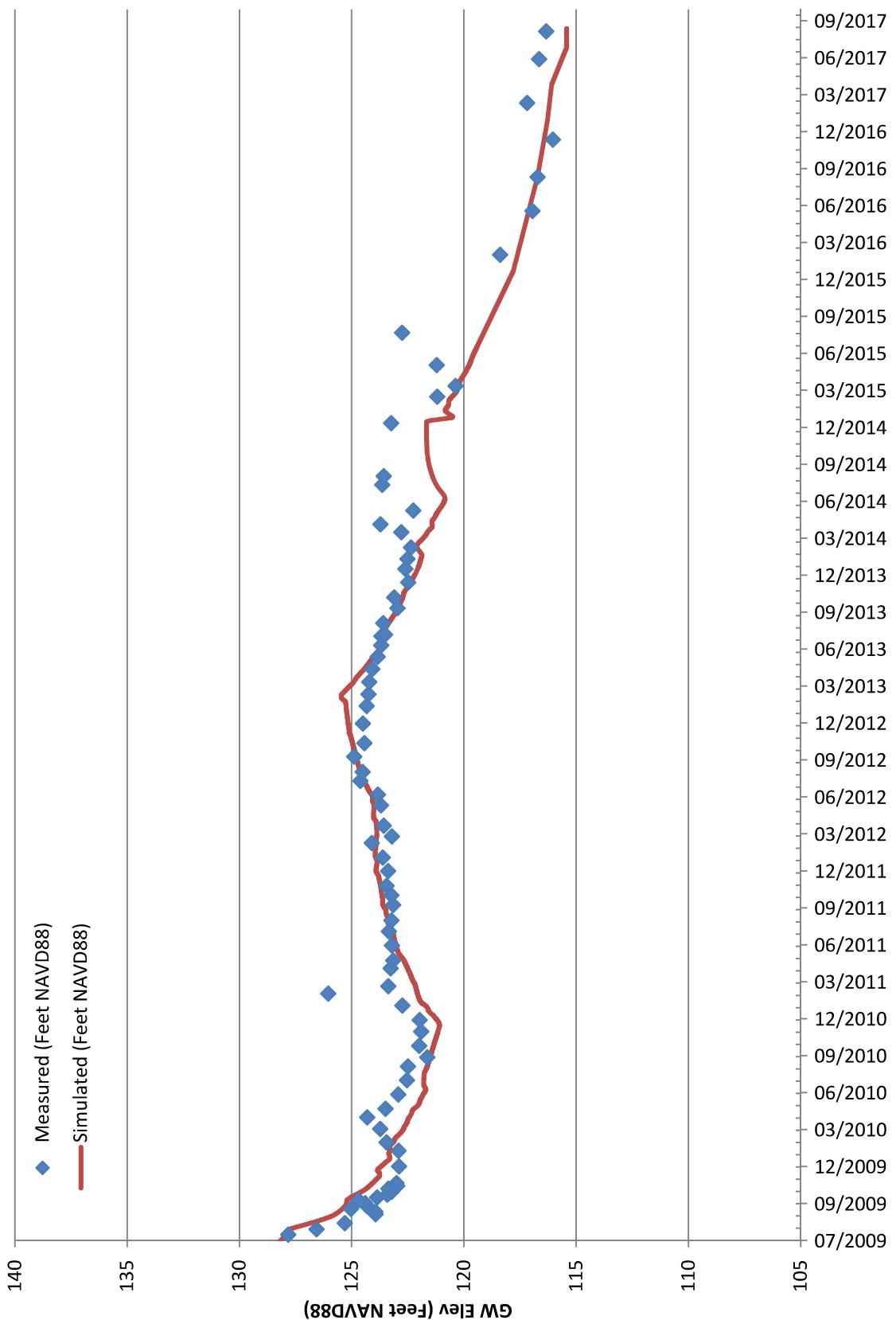


Figure F-8
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-11

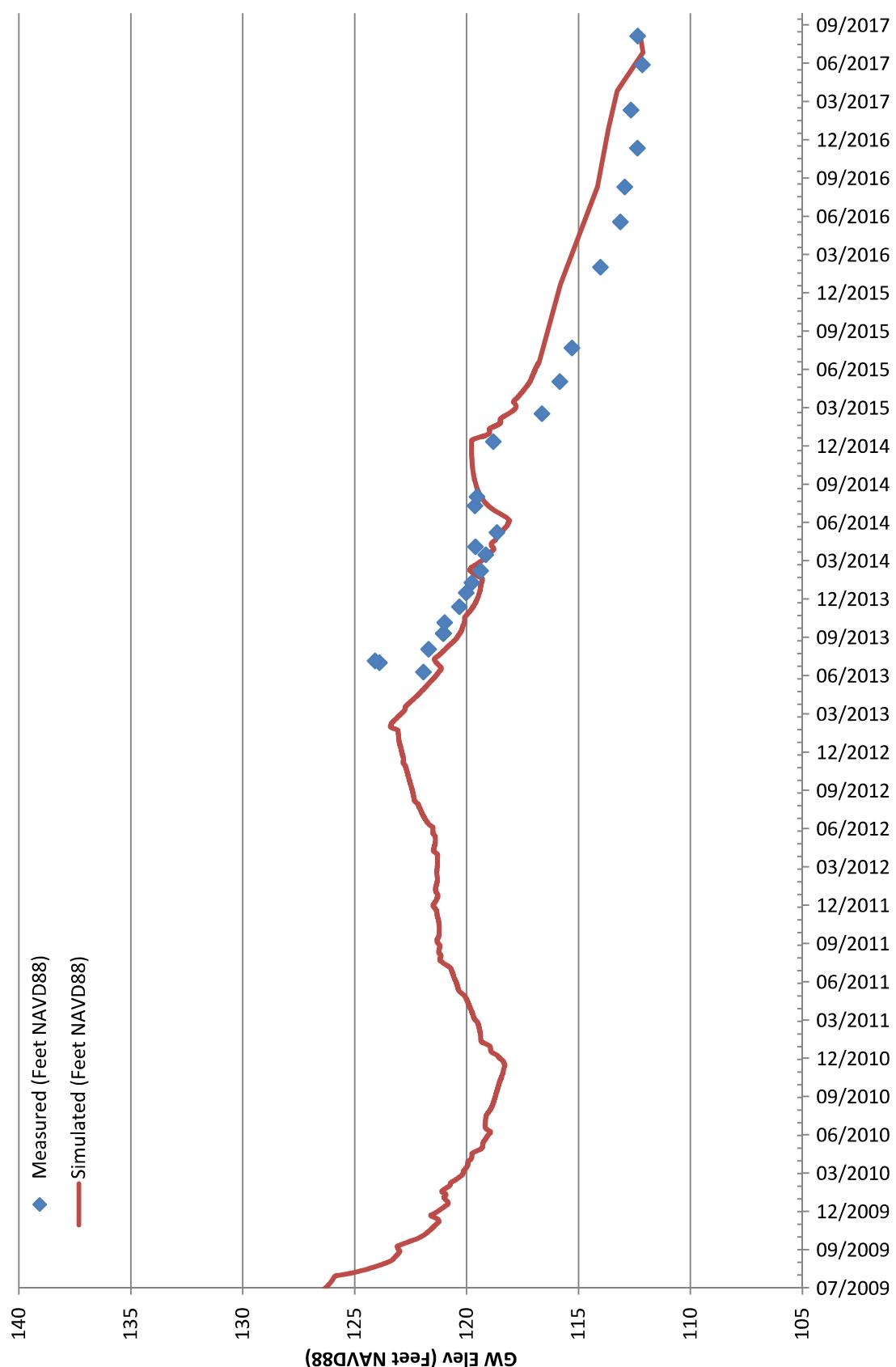


Figure F-9
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-12

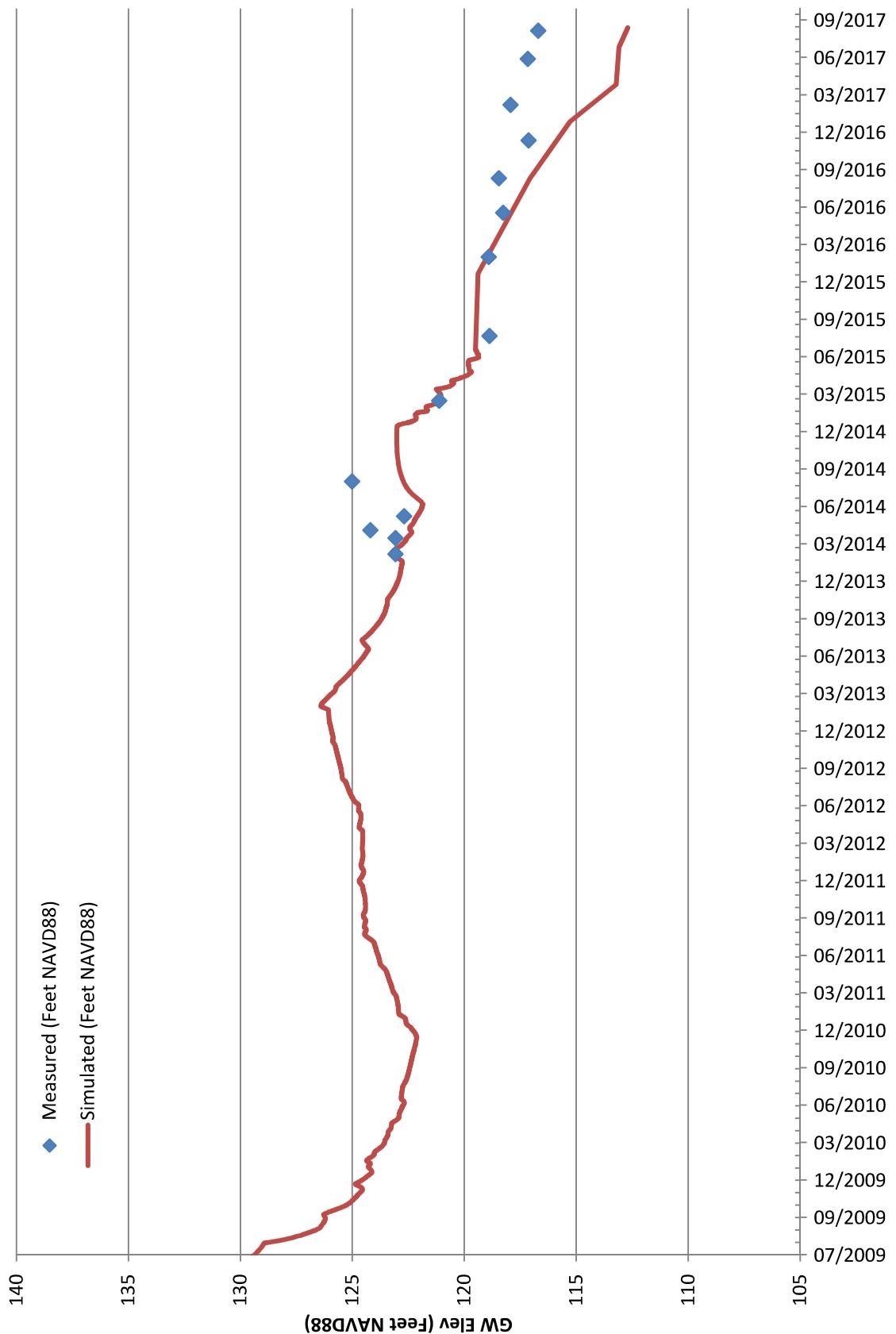


Figure F-10
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-1

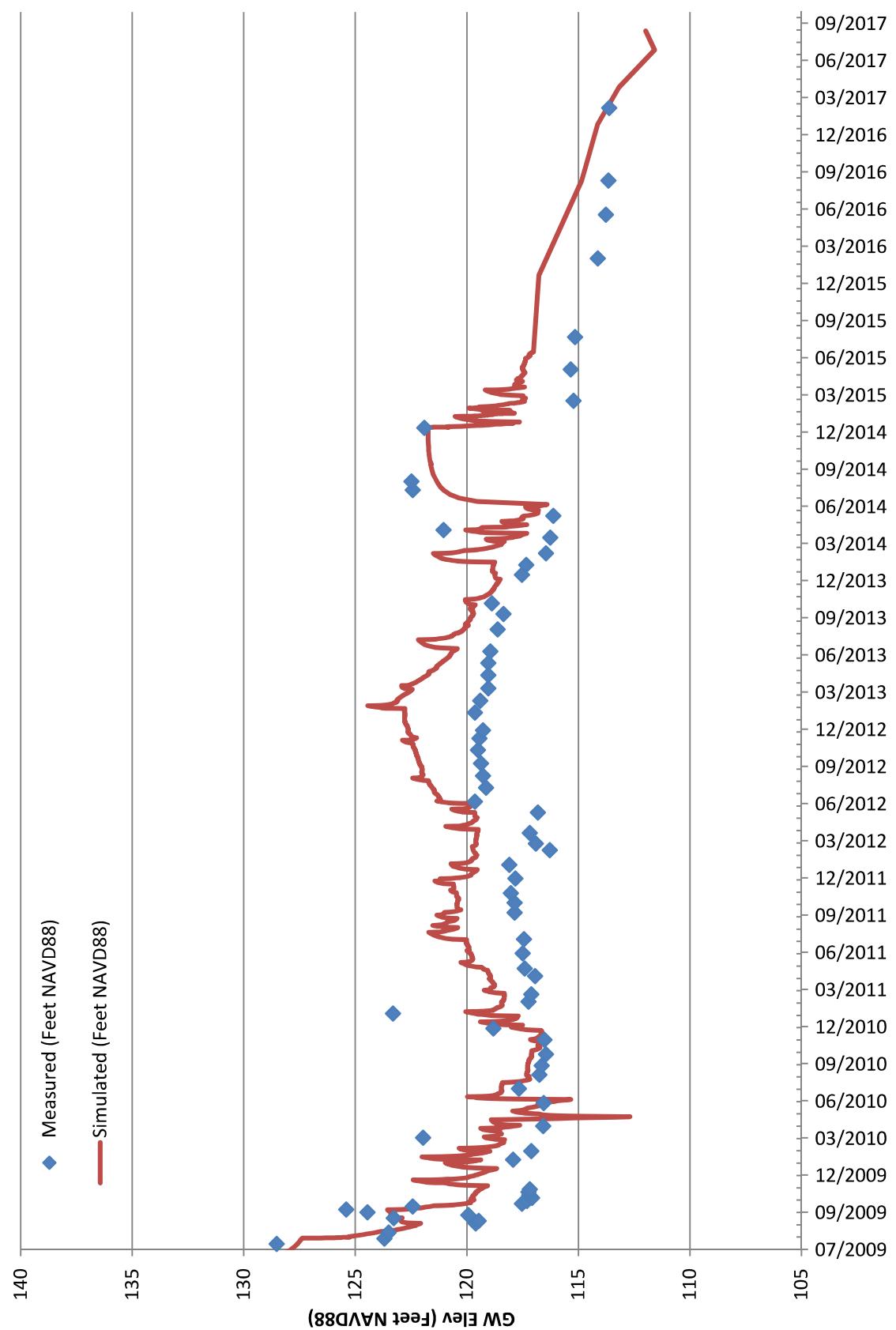


Figure F-11
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-2

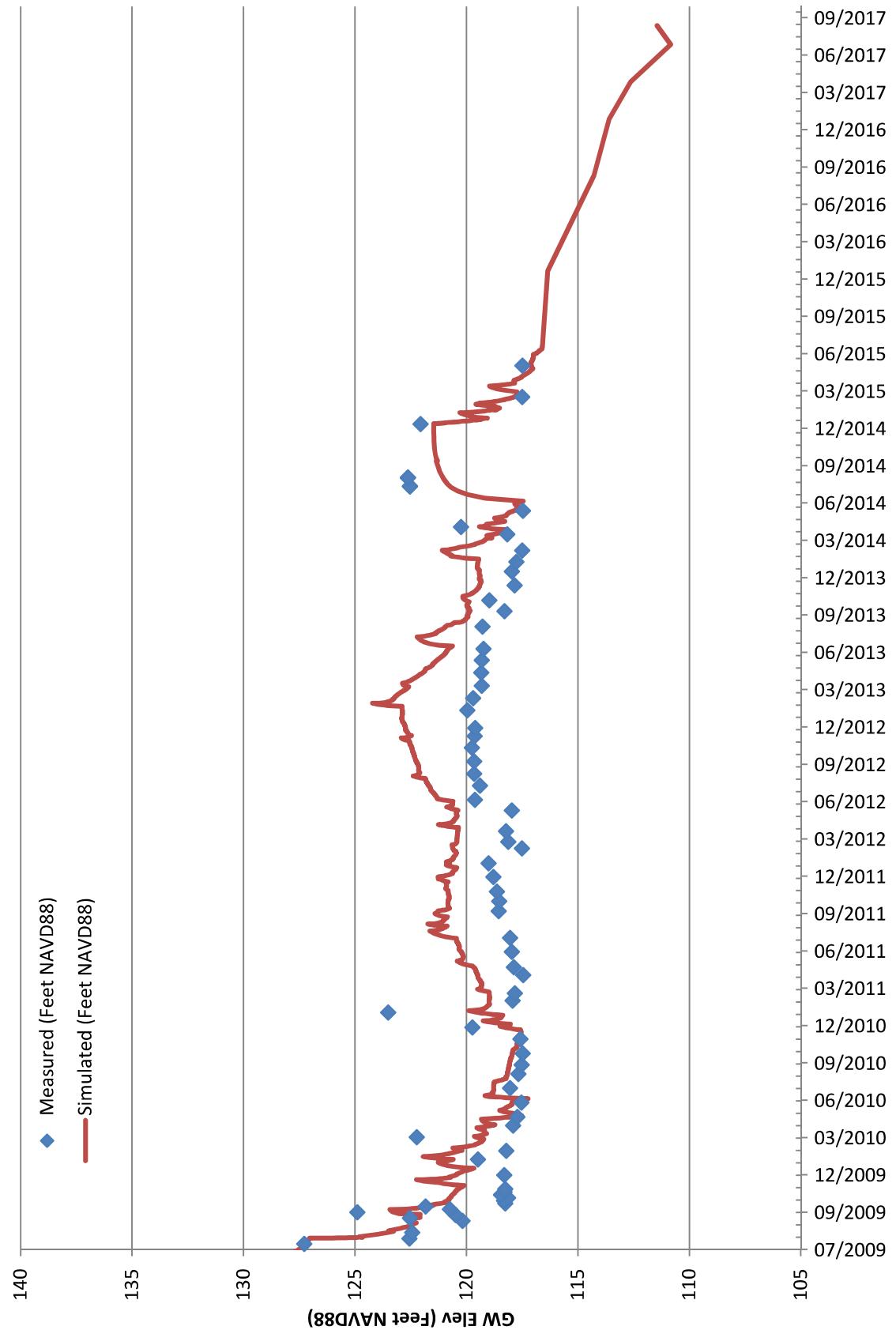


Figure F-12
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-3

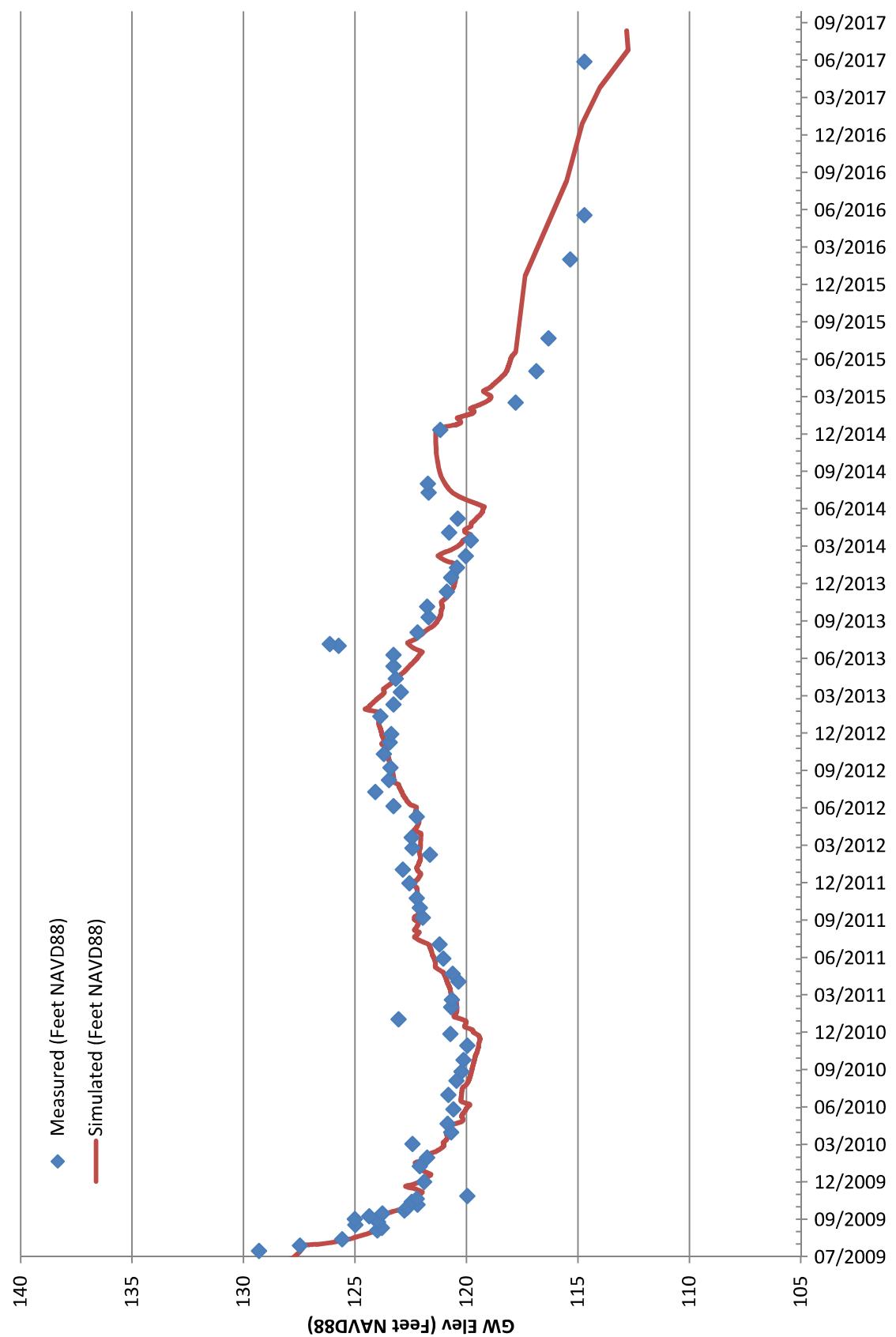


Figure F-13
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-4

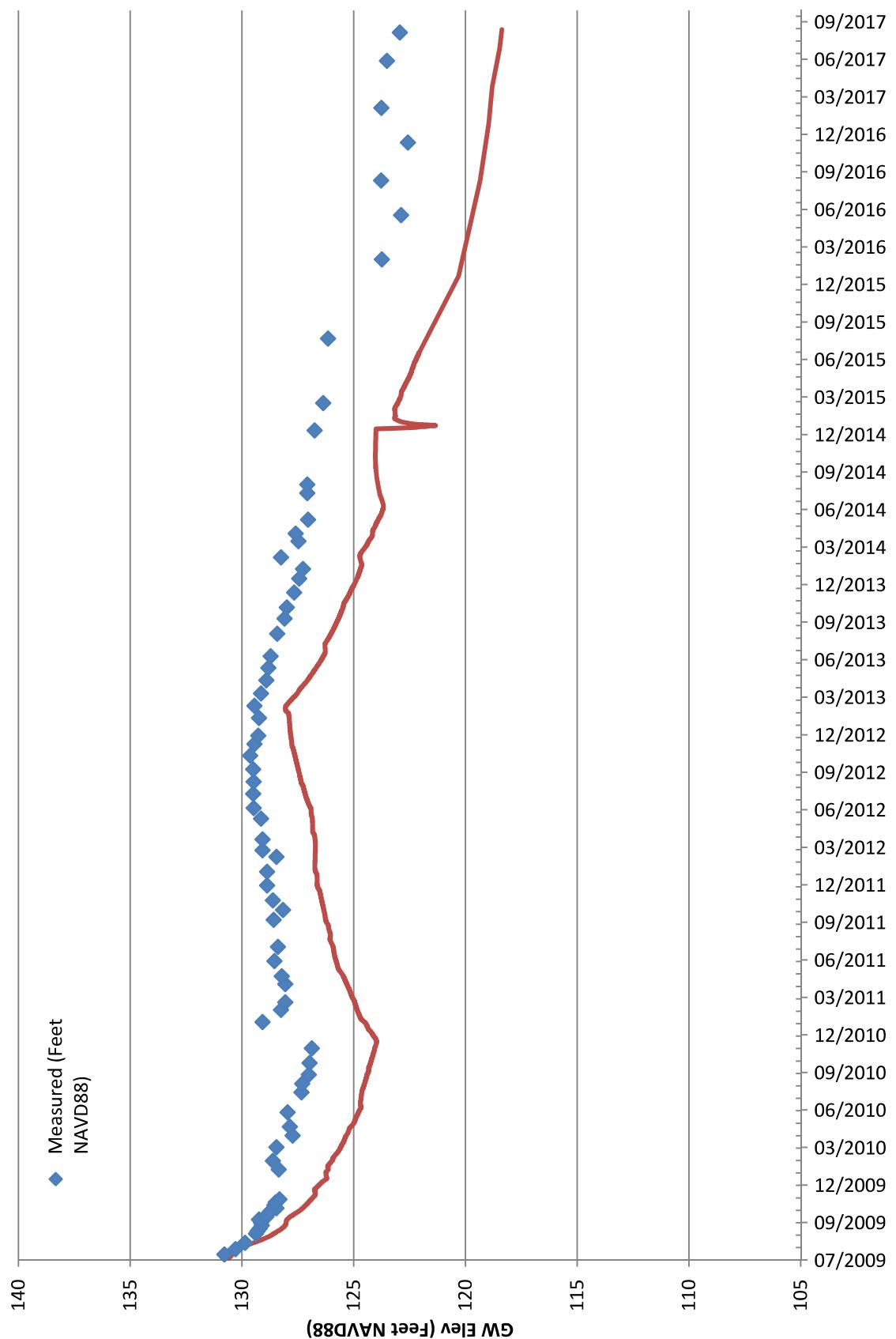


Figure F-14
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-5

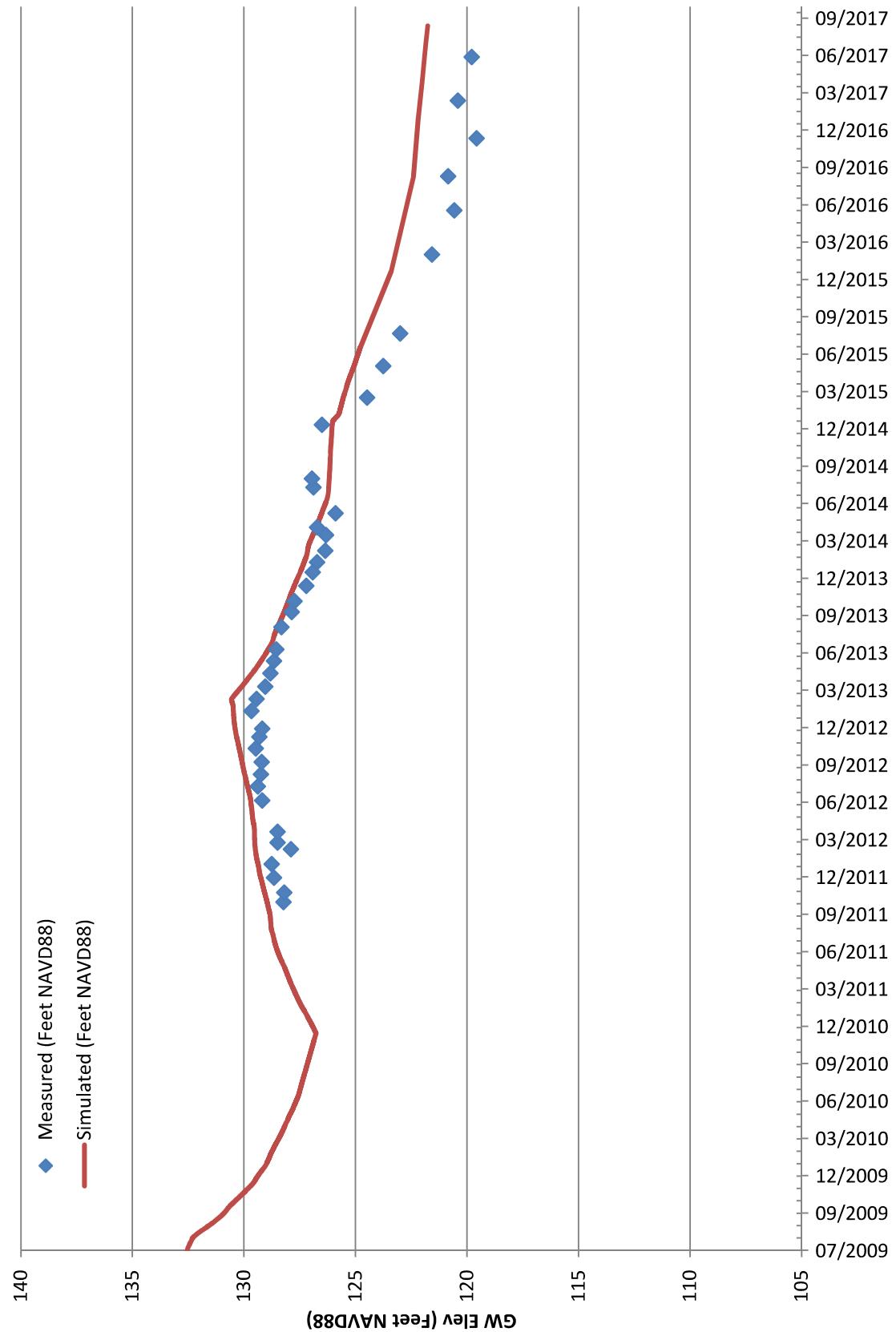


Figure F-15
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-6

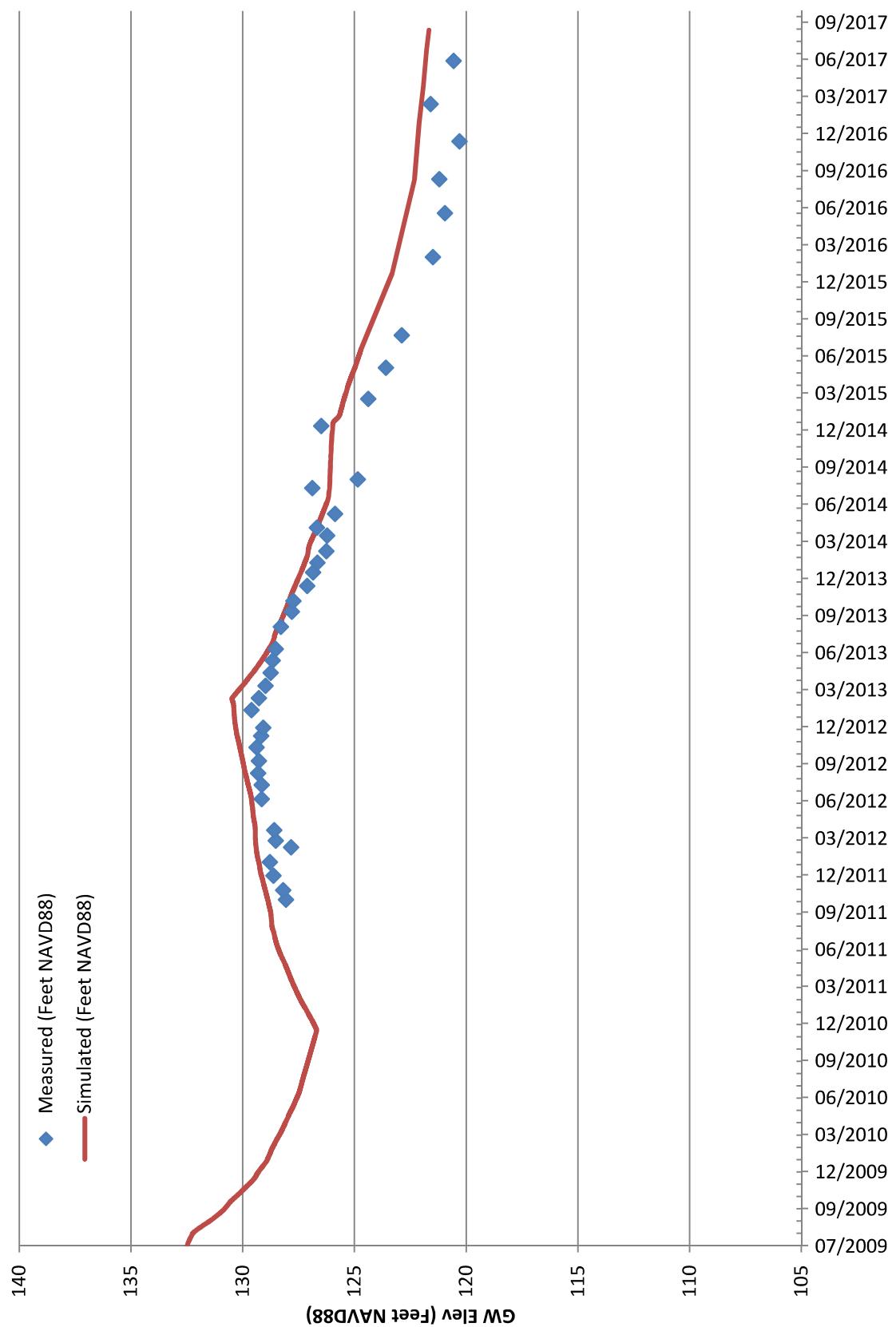


Figure F-16
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-7

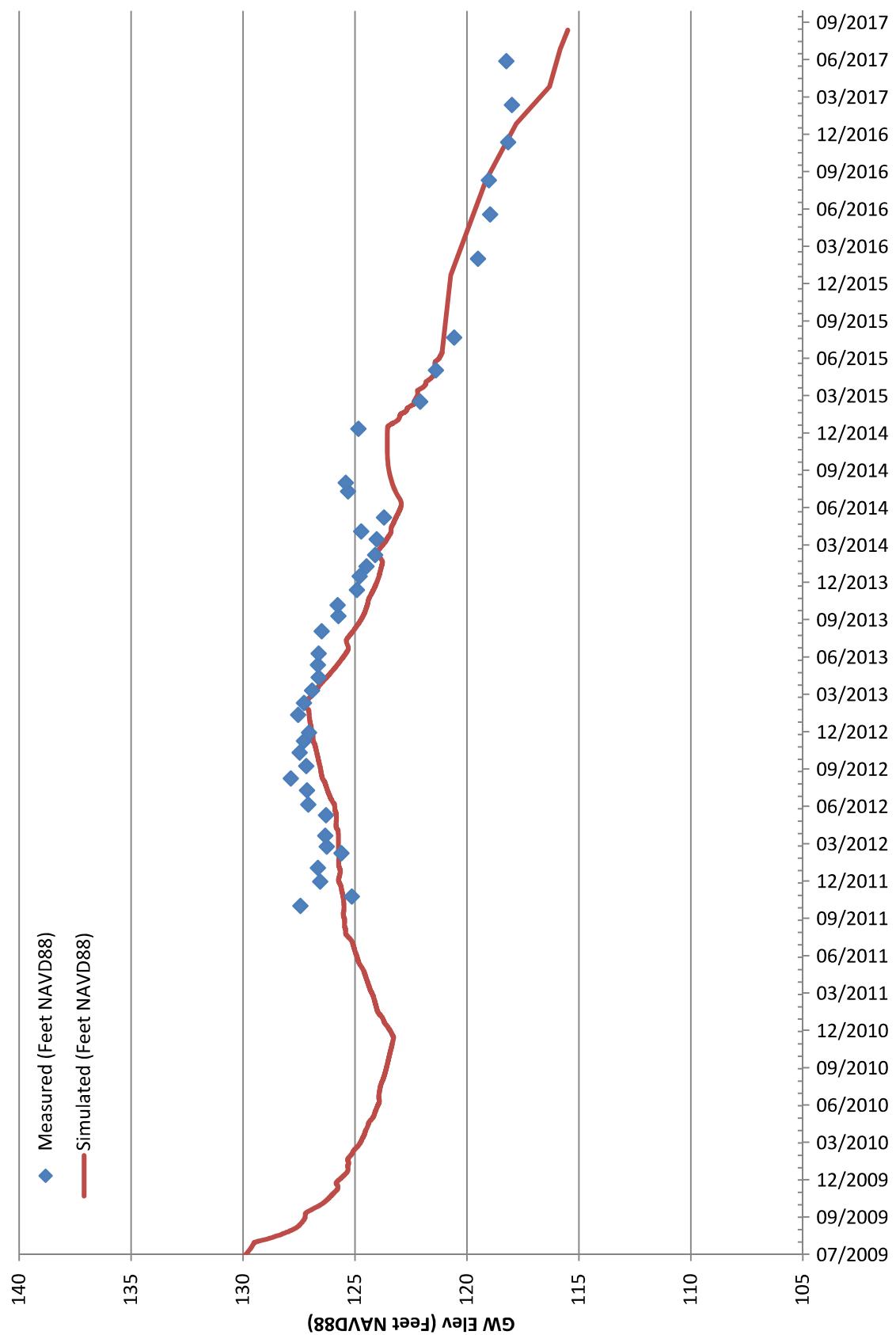


Figure F-17
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-8

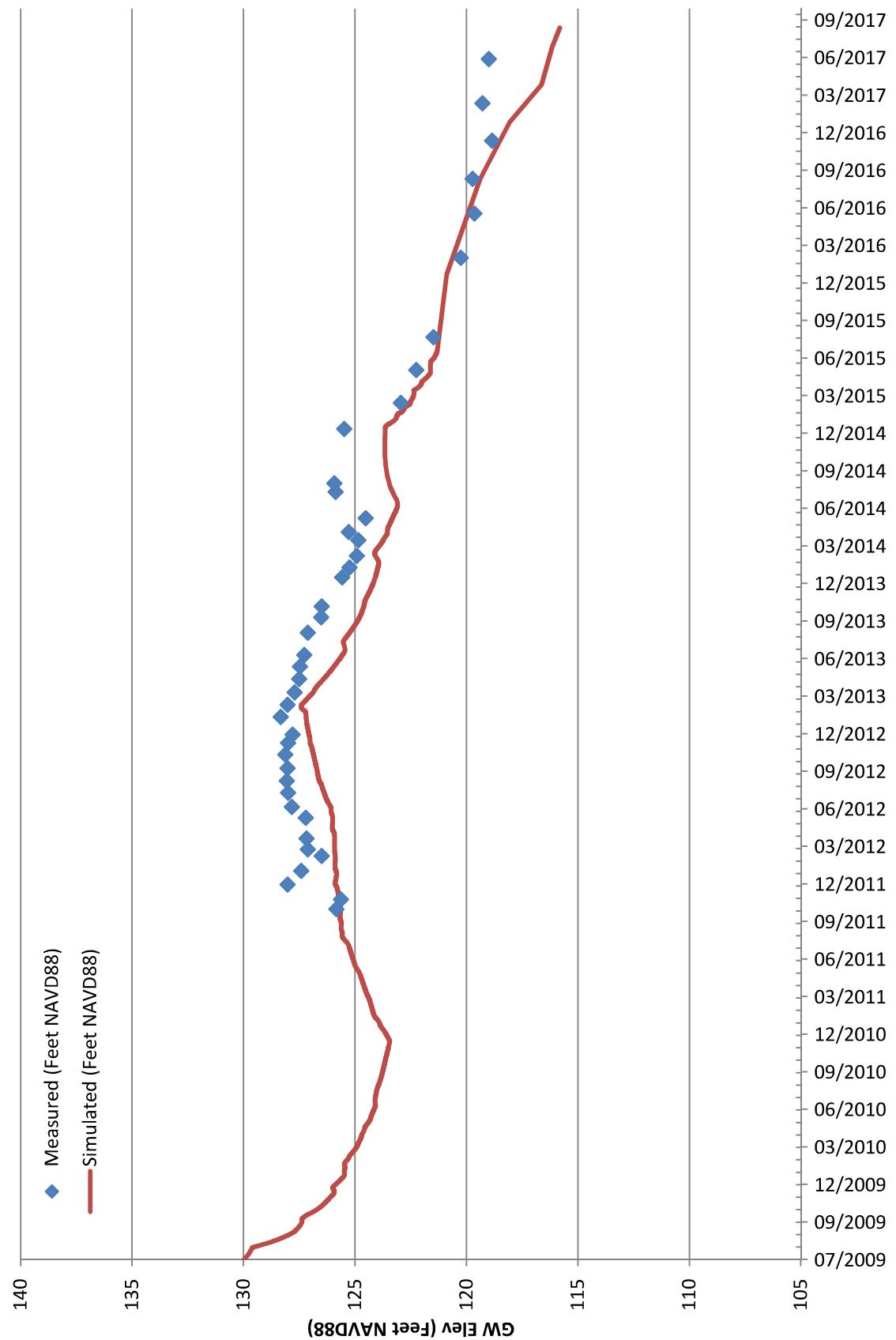


Figure F-18
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-9

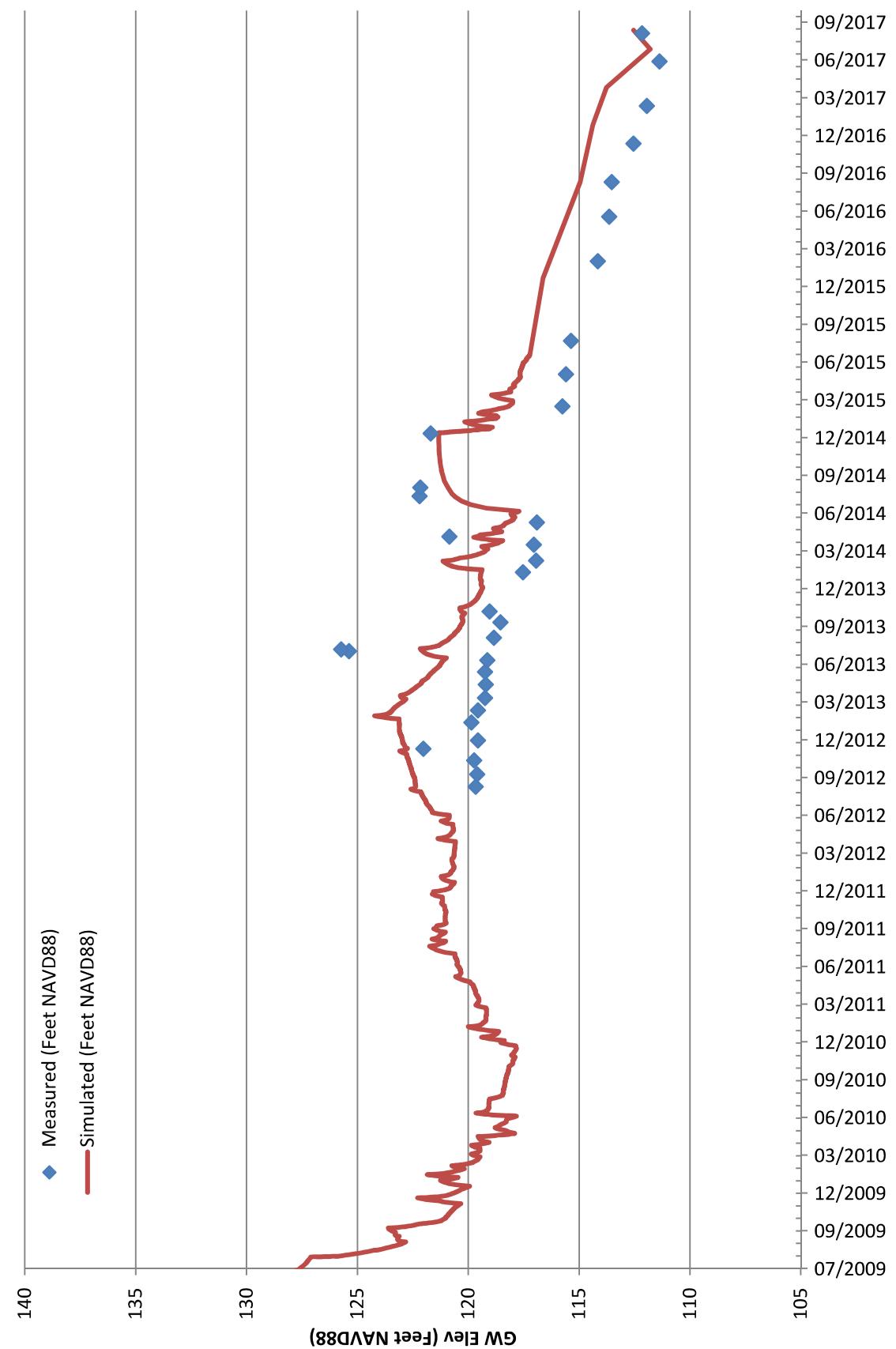


Figure F-19
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-3

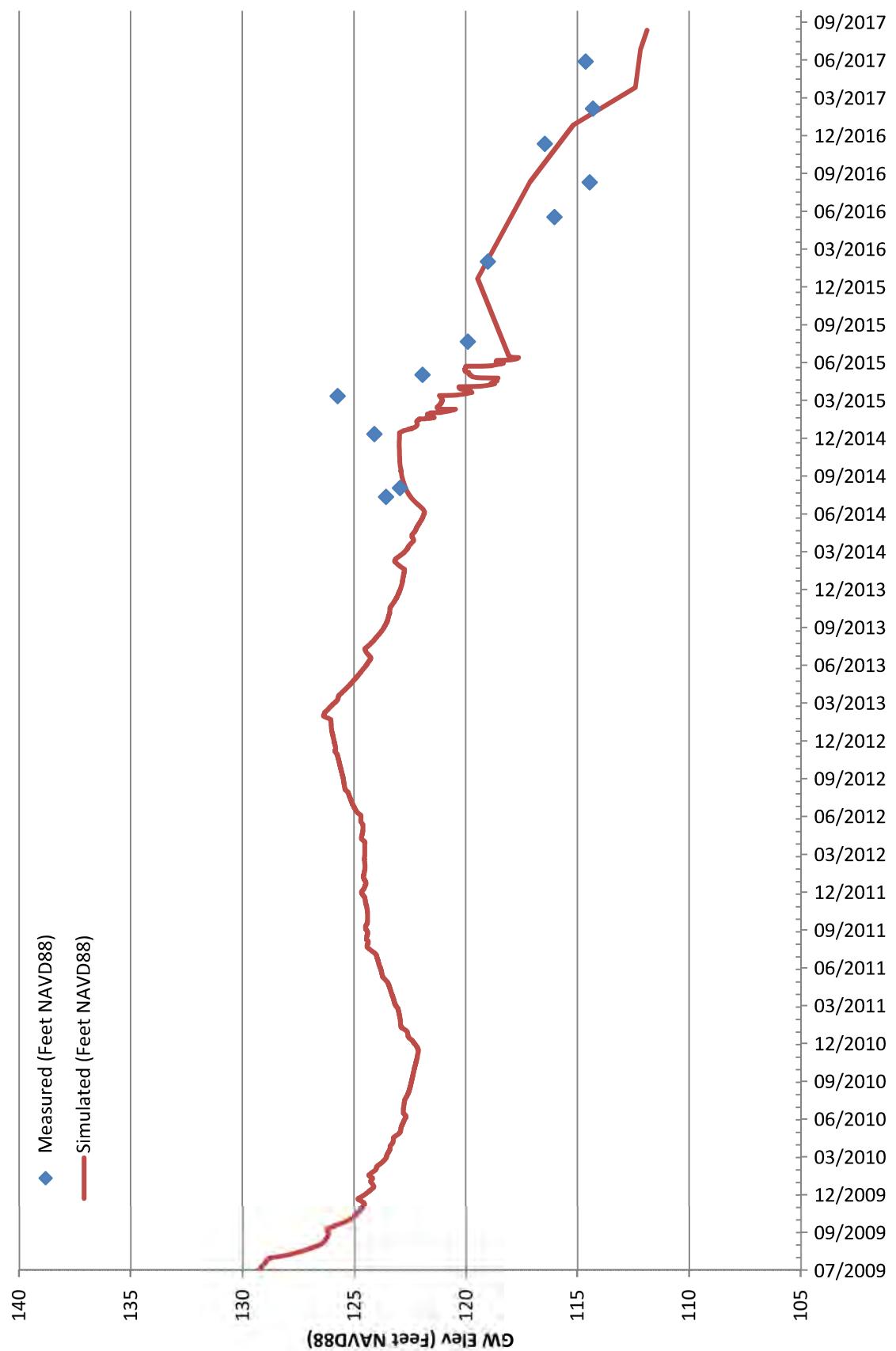


Figure F-20
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-4

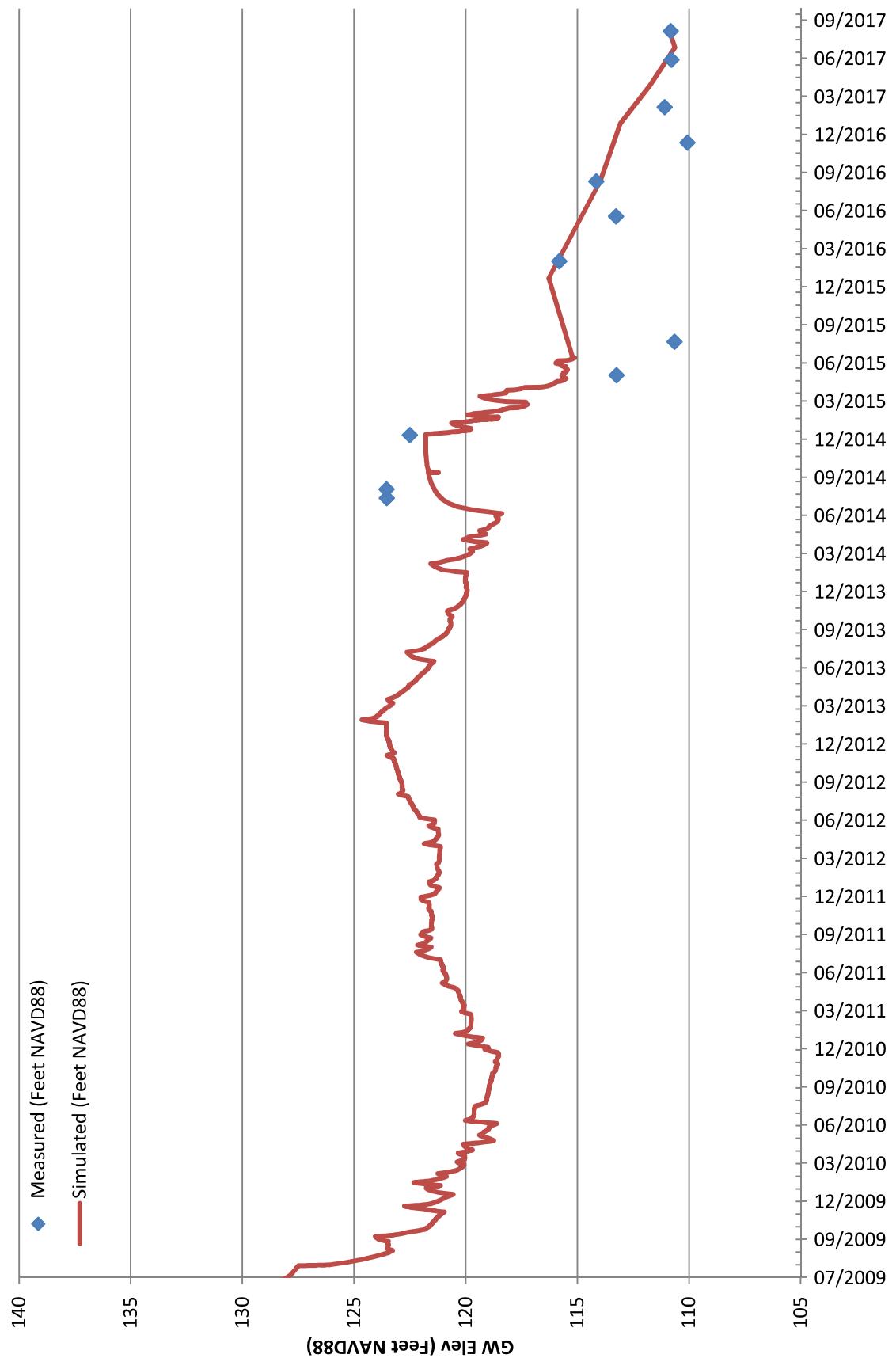


Figure F-21
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-5

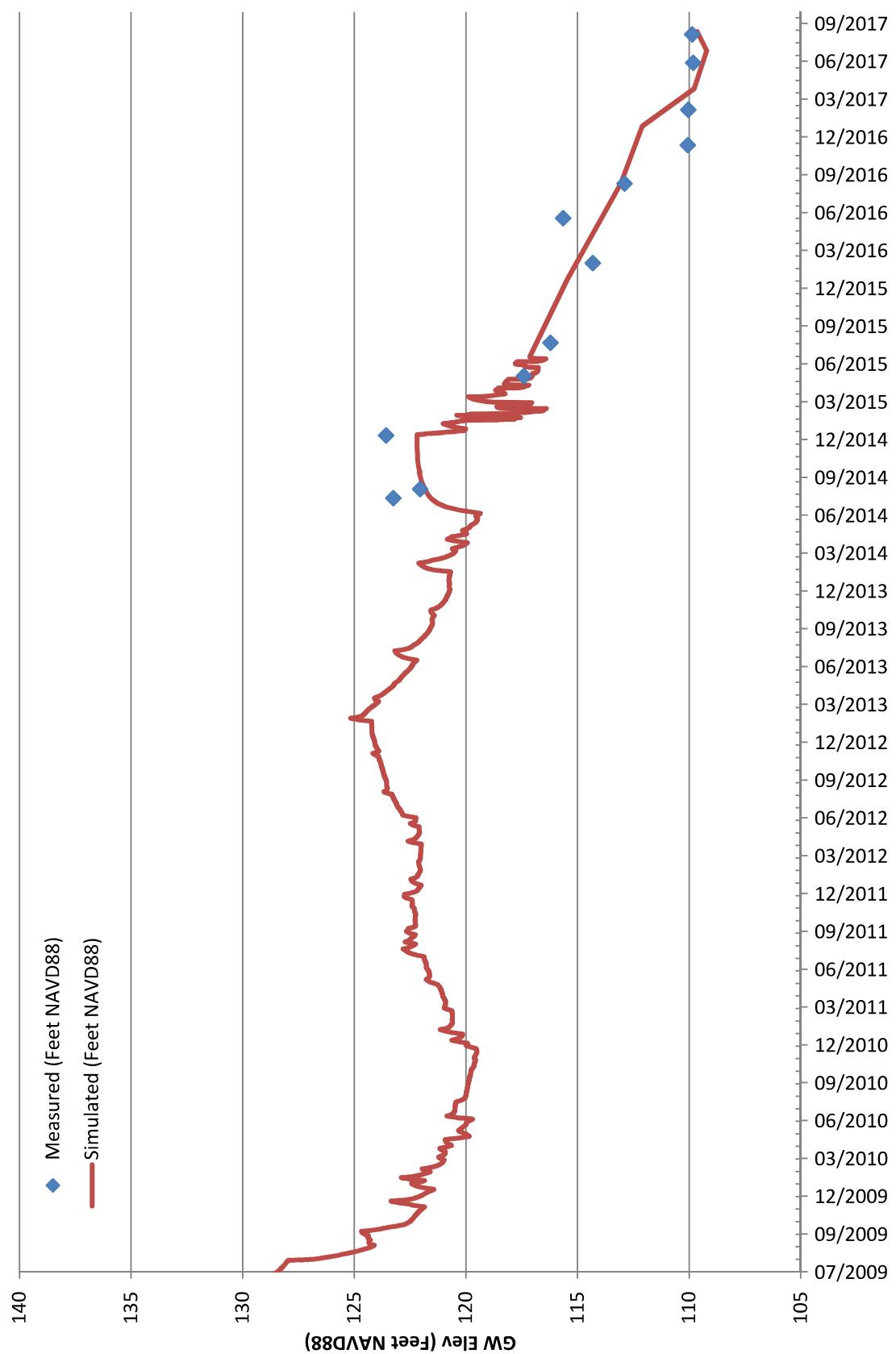


Figure F-22
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-8

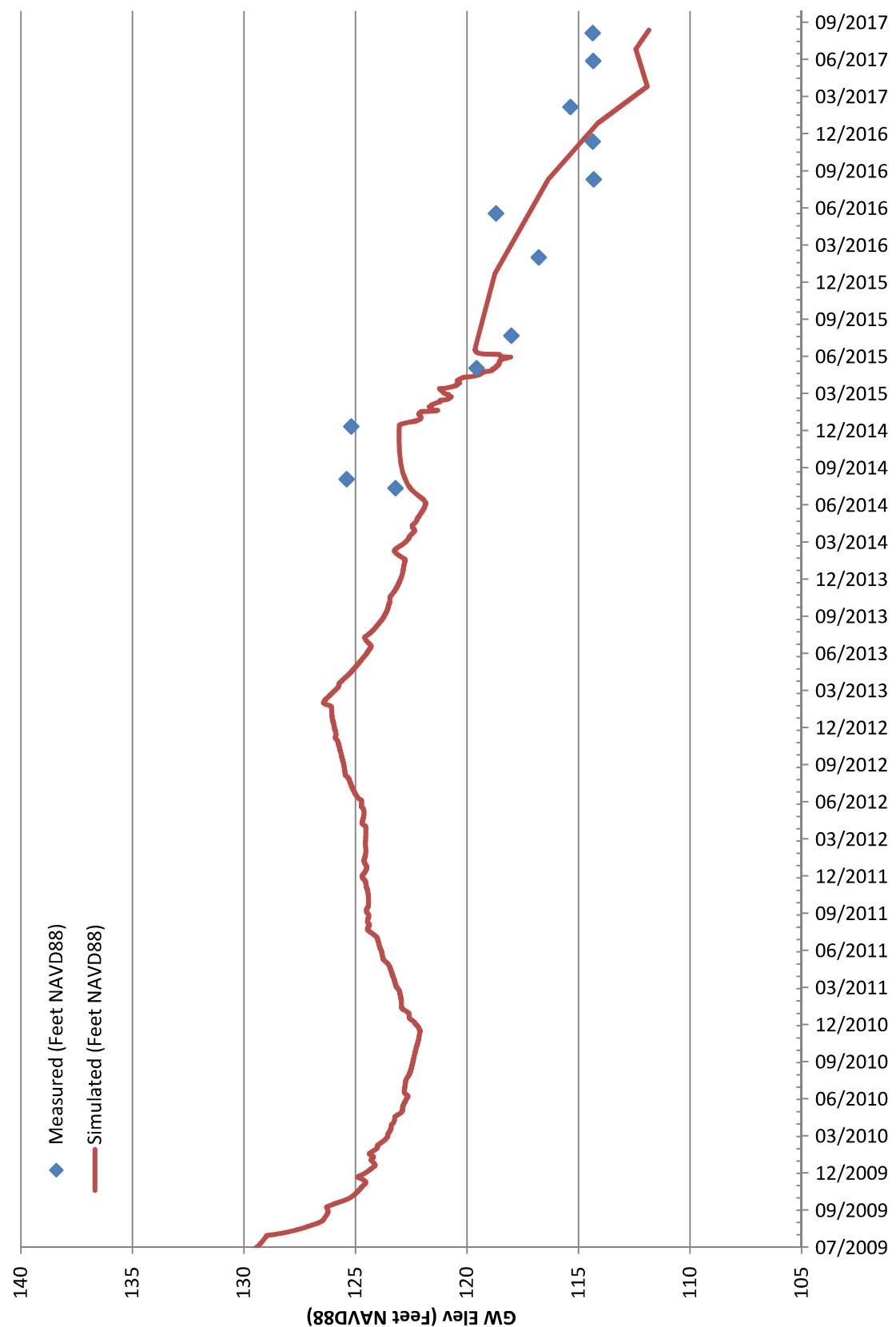


Figure F-23
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-9

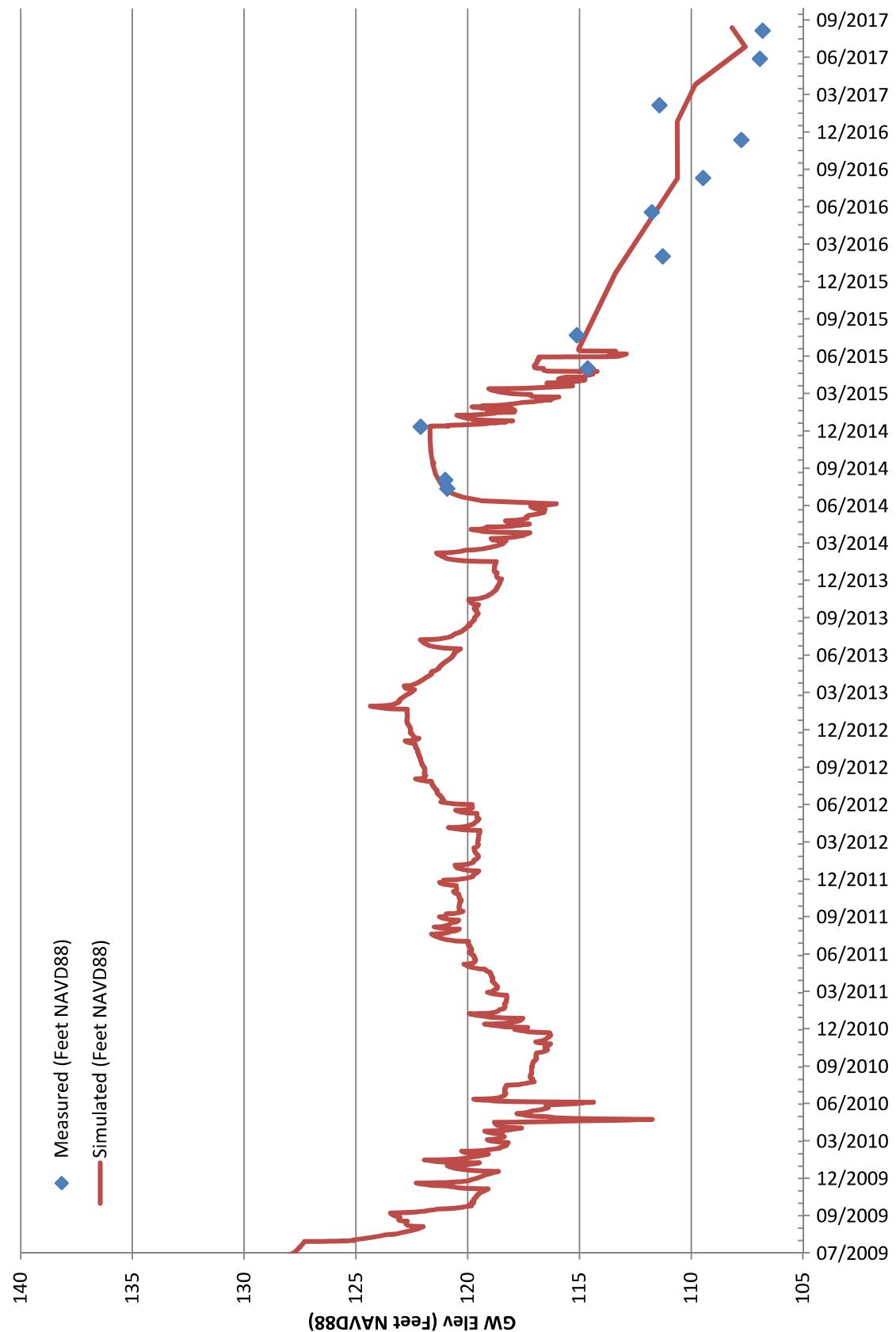


Figure F-24
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-6D

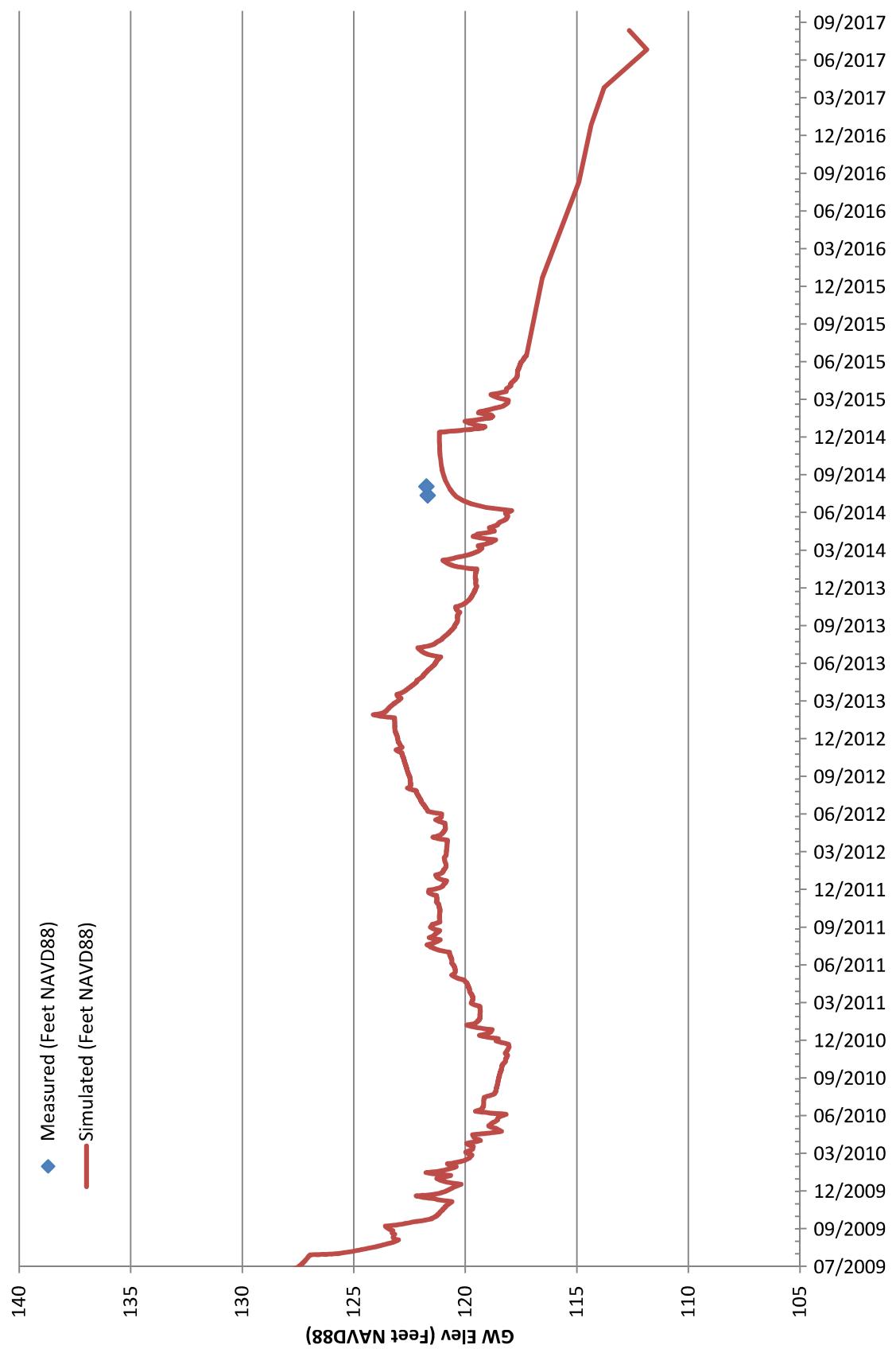


Figure F-25
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-7D

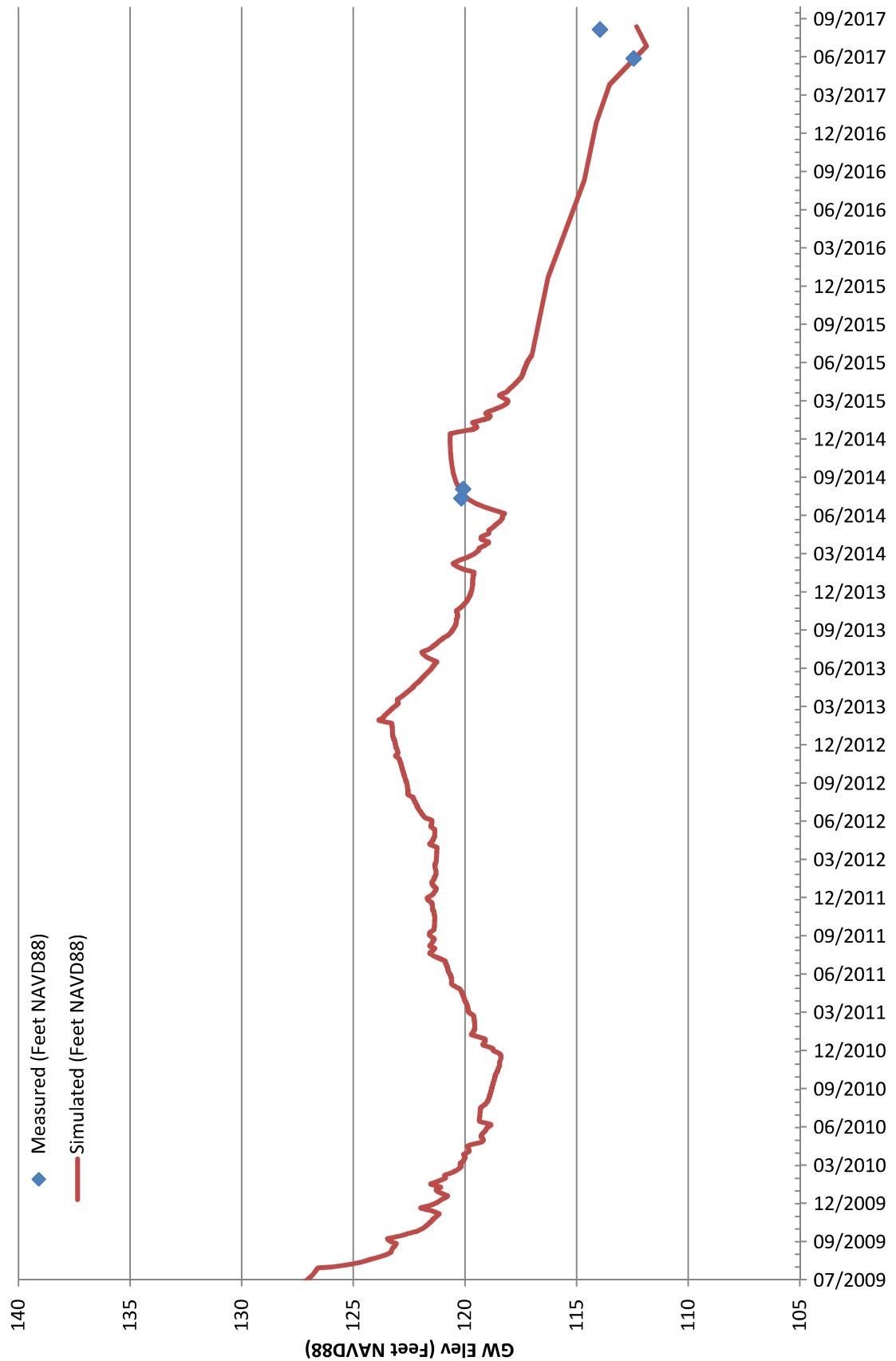


Figure F-26
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-10D

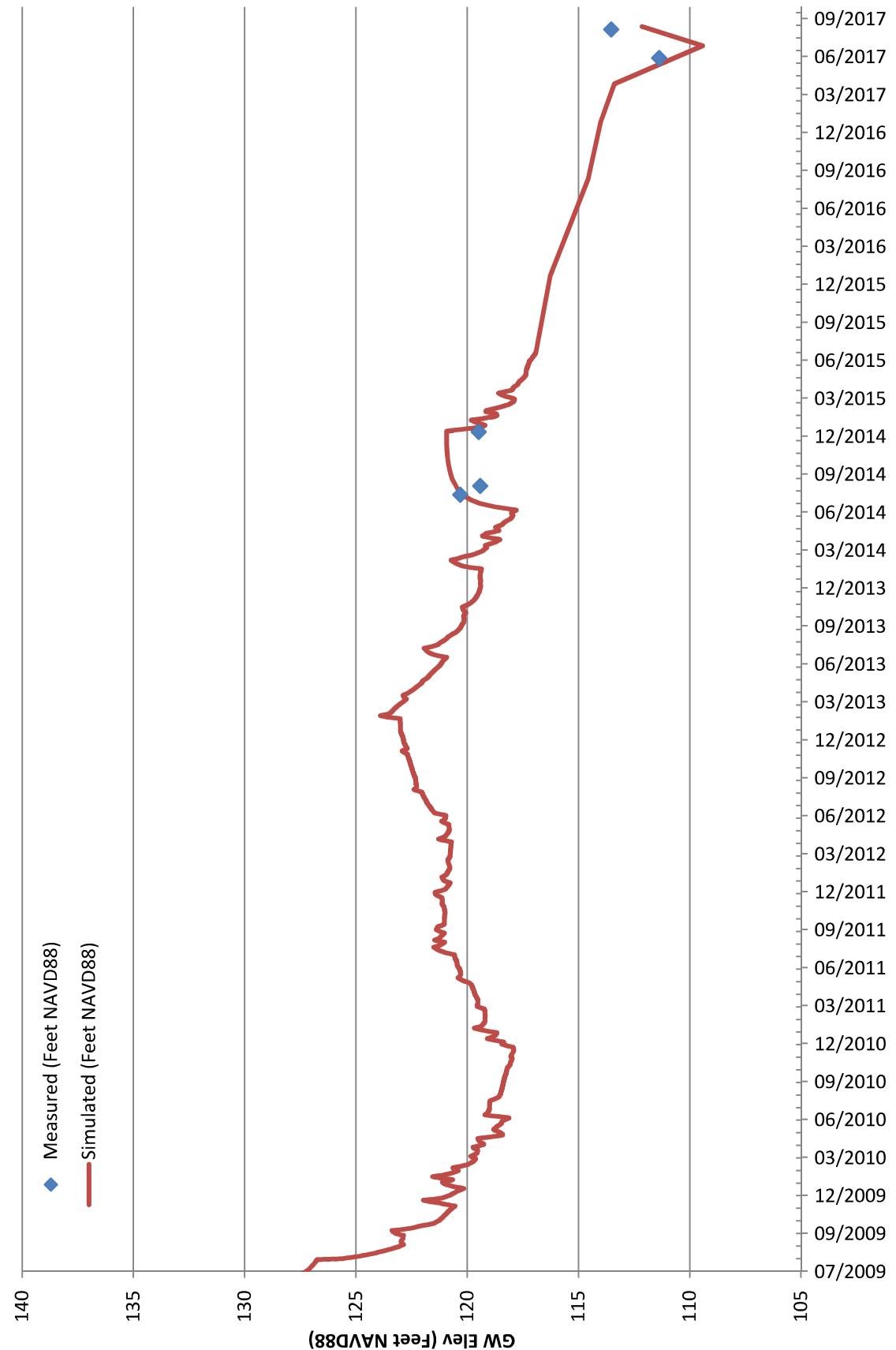


Figure F-27
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-14D

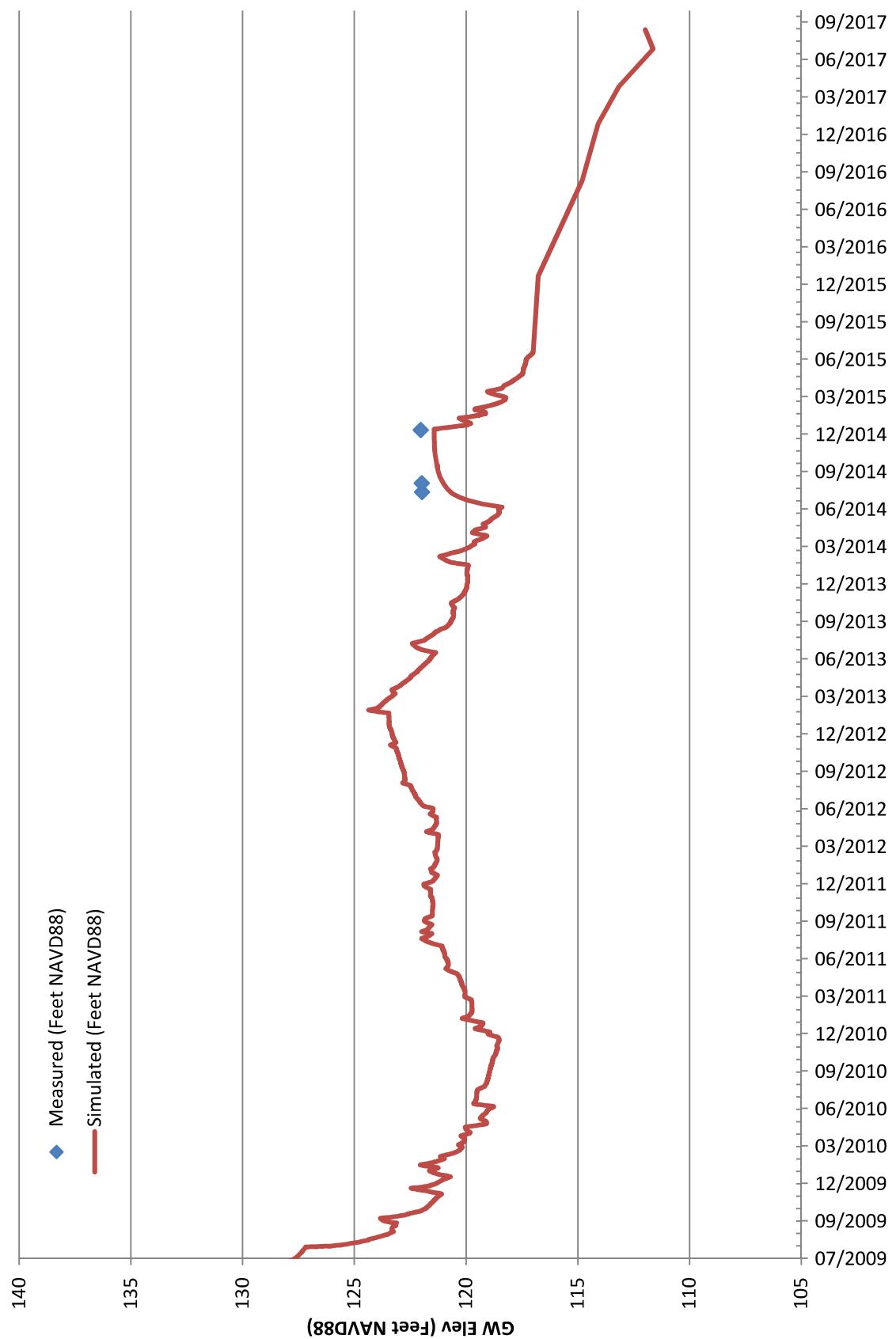
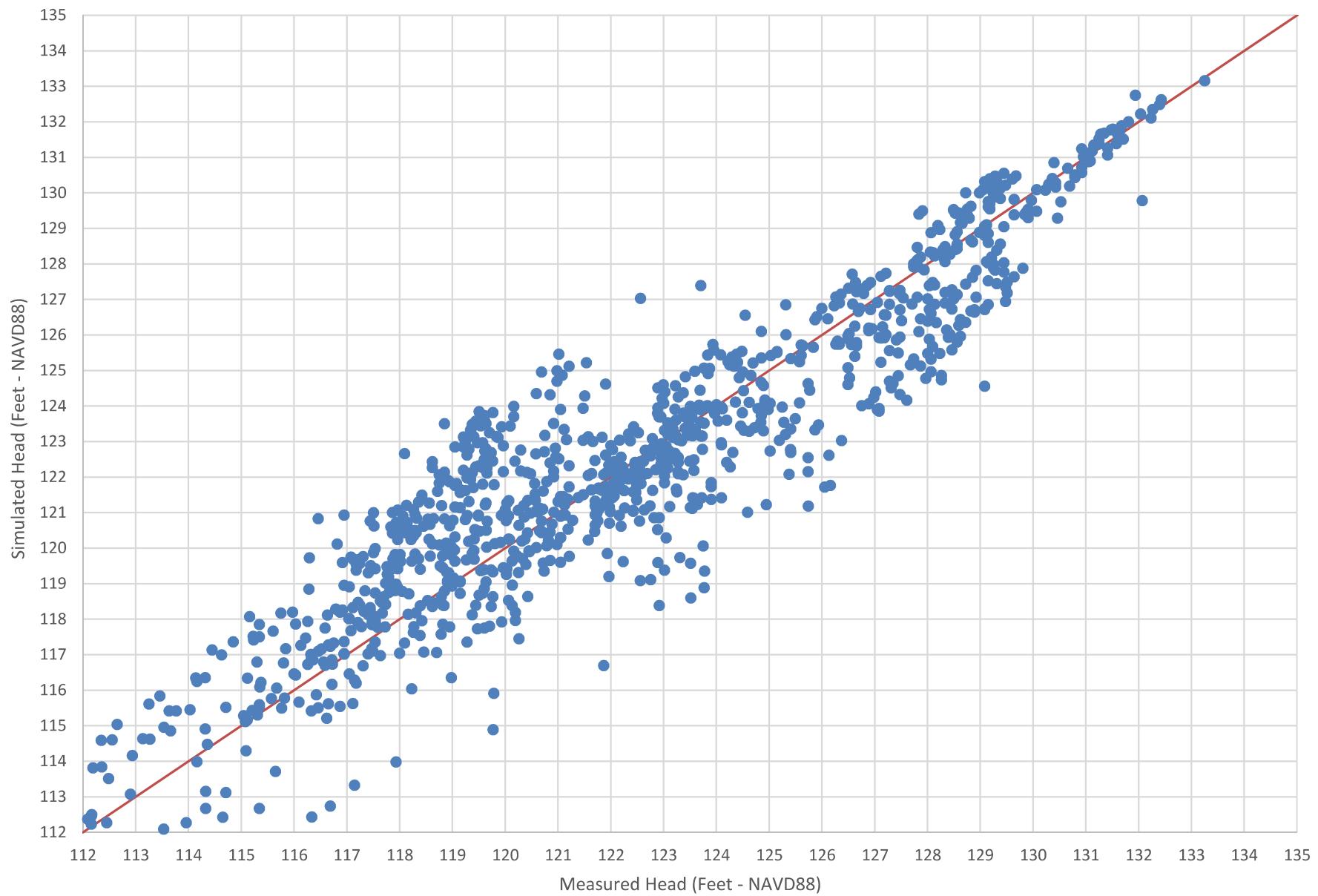
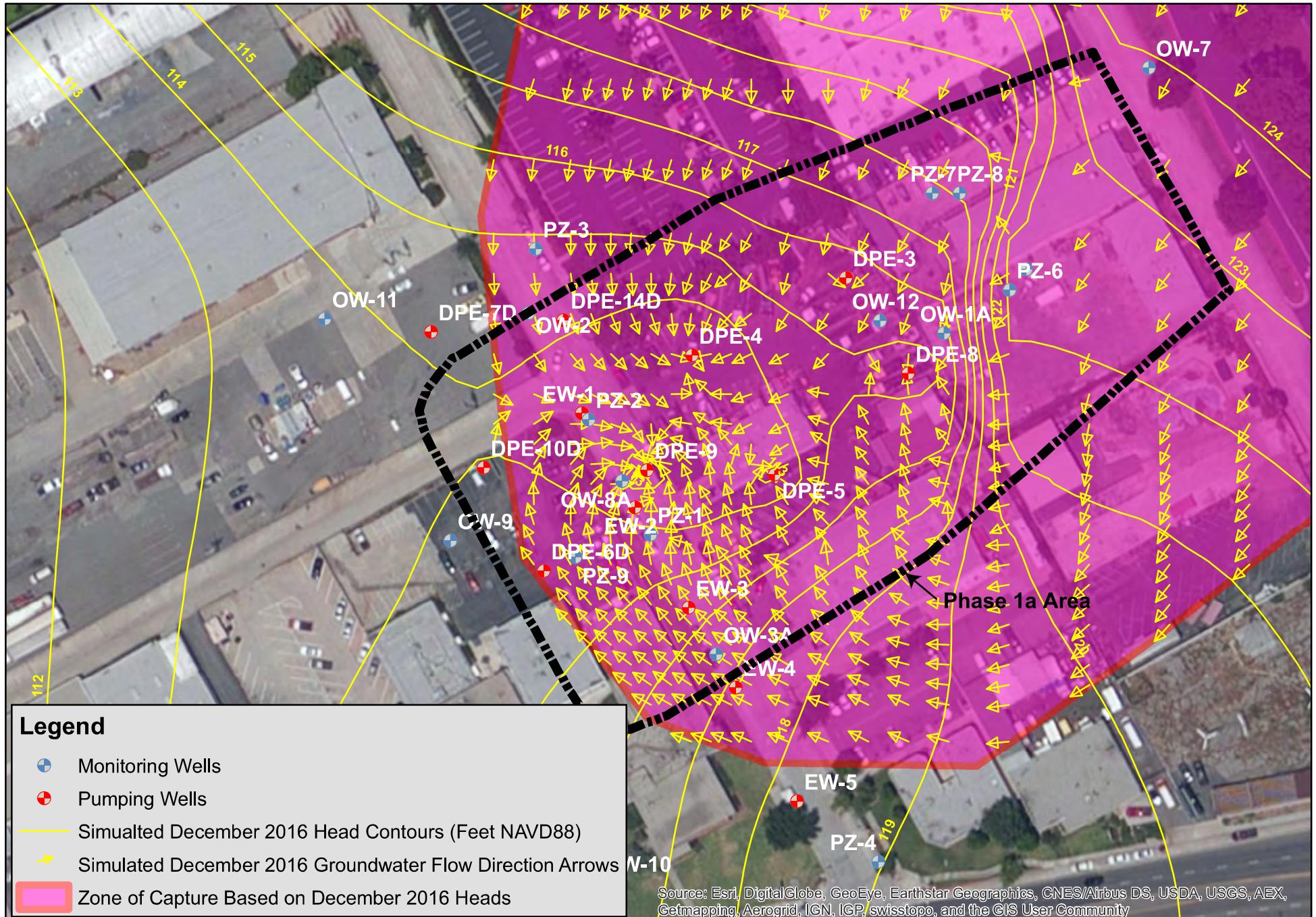


Figure F-28 - Model Calibration Scatter Plot

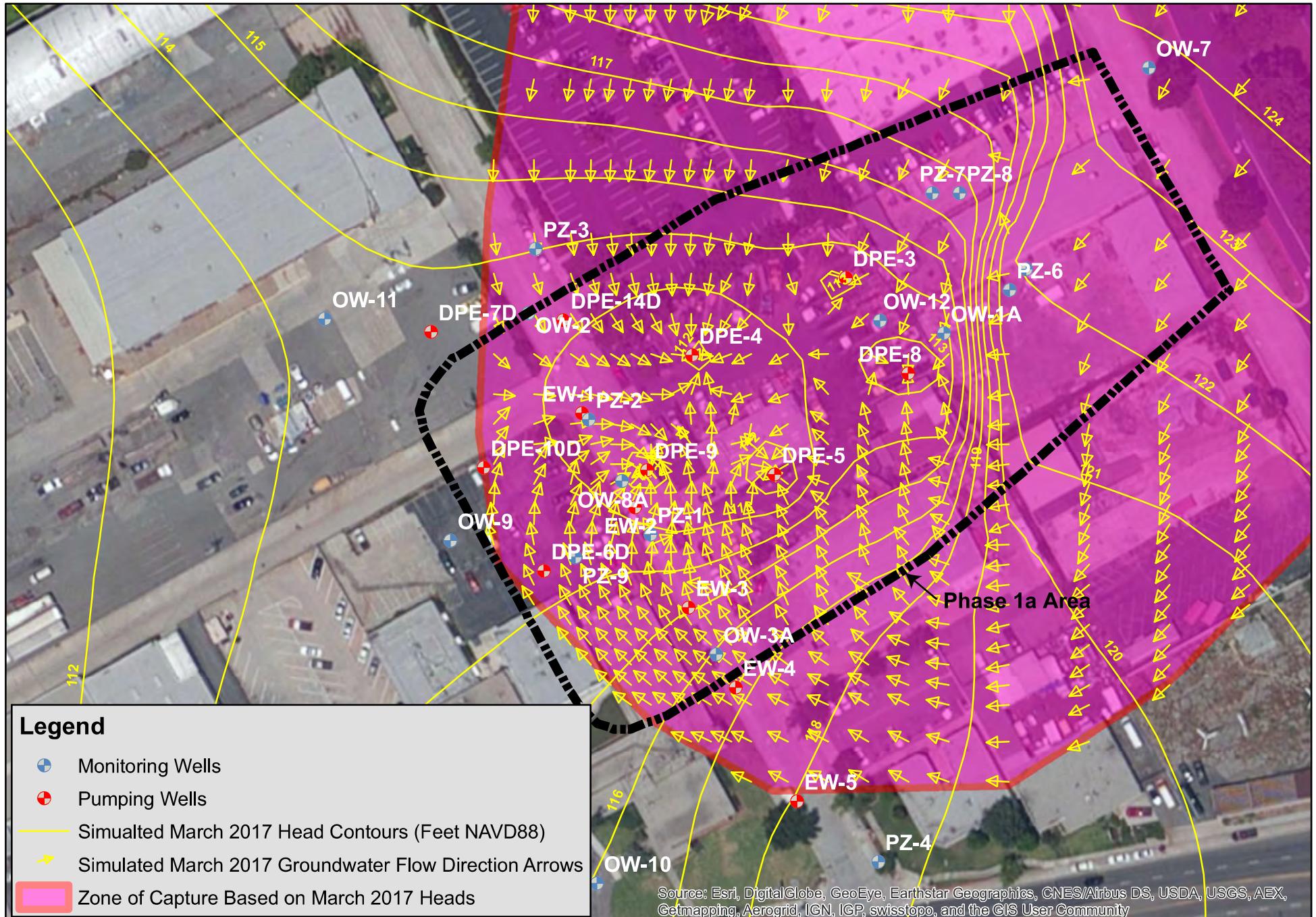




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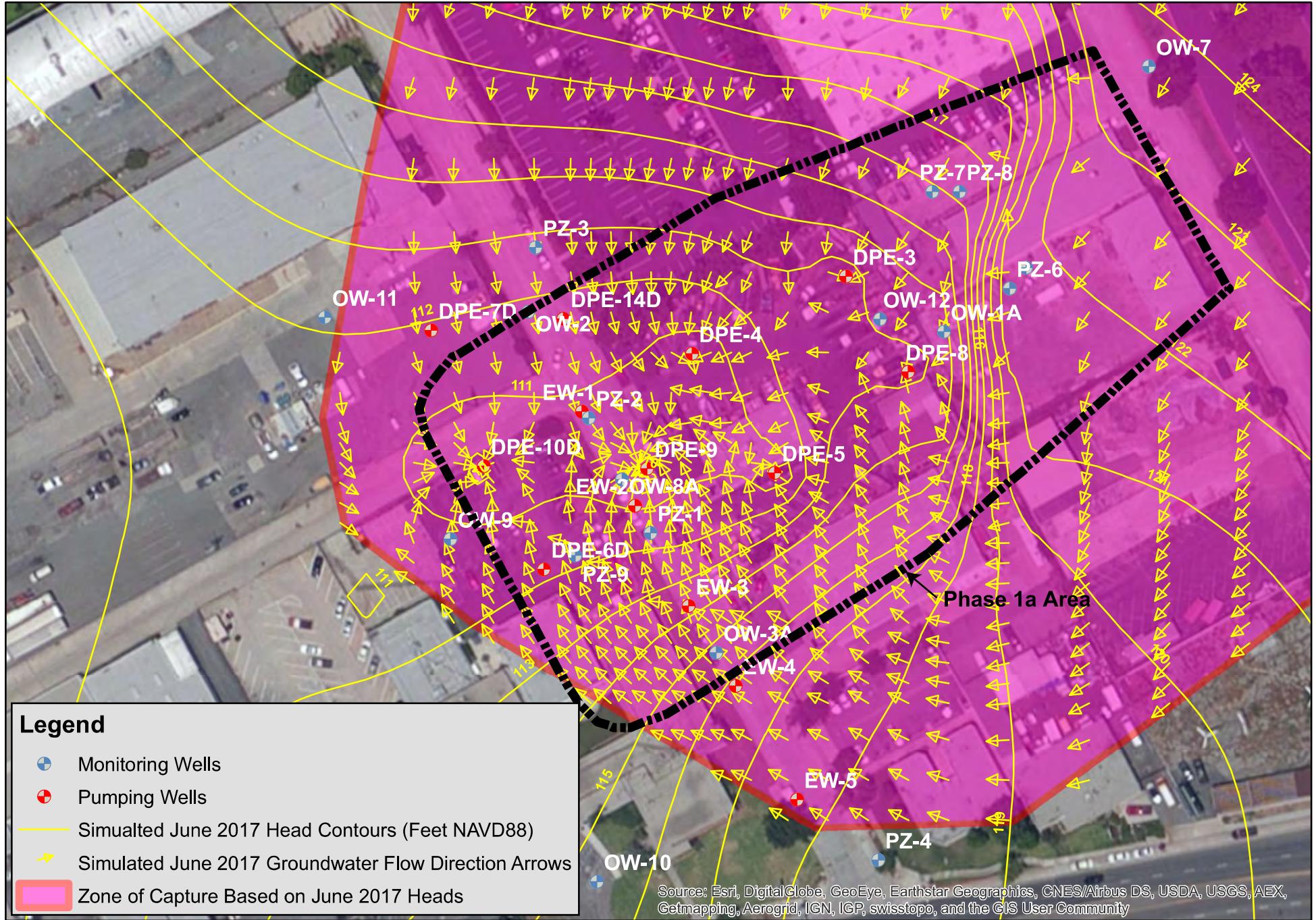
Figure F-29 - Simulated Flow Direction Arrows and Head Contours
December 2016 Conditions
Omega Chemical Facility
Capture Zone Model





**Figure F-30 - Simulated Flow Direction Arrows and Head Contours
March 2017 Conditions
Omega Chemical Facility
Capture Zone Model**



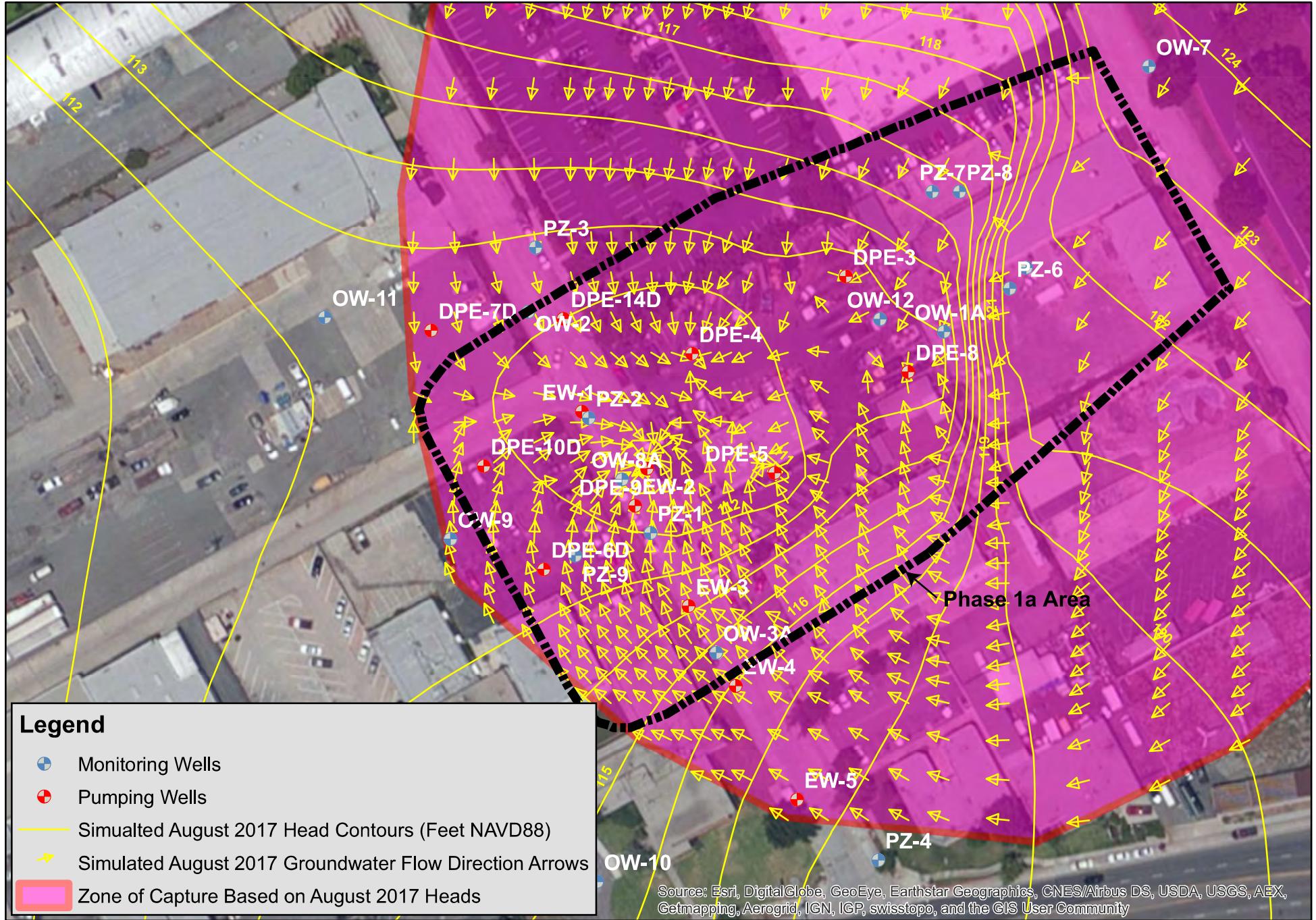


**CDM
Smith**

0 25 50 100 Feet



**Figure F-31 - Simulated Flow Direction Arrows and Head Contours
June 2017 Conditions
Omega Chemical Facility
Capture Zone Model**



N

Figure F-32 - Simulated Flow Direction Arrows and Head Contours
August 2017 Conditions
Omega Chemical Facility
Capture Zone Model



**CDM
Smith**

0 25 50 100 Feet



**Figure F-33 - Simulated Head Contours with Residuals
June 2017 Conditions
Omega Chemical Facility
Capture Zone Model**

Attachment G

Annual Operational Data Summaries

Attachment G, Table G-1
Hydraulic Containment Extraction Well Operational Summary
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate ¹ (gpm)	Average Flow Rate ² (gpm)	Mass Removed (lbs)
EW-1	October 2016	0.01	1.51	2.51	0.00003	
	November 2016	0	0	0	0	
	December 2016	0 ³	0	0	0	
	January 2017	0.02	0.76	0.63	0.00002	
	February 2017	0.06	0.44	0.12	0.00001	
	March 2017	0.04	0.11	0.05	0.000002	
	April 2017	0	0	0	0	
	May 2017	0.37	4.12	0.19	0.0001	
	June 2017	0	0	0	0	
	July 2017	0.06	0.55	0.15	0.00001	
	August 2017	0 ³	0	0	0	
	September 2017	0	0	0	0	
	Annual	0.56	7.49	0.30	0.00001	0.000005
EW-2	October 2016	0	0	0	0	
	November 2016	0	0	0	0	
	December 2016	0	0	0	0	
	January 2017	0	0	0	0	
	February 2017	0 ³	0	0	0	
	March 2017	0 ³	0	0	0	
	April 2017	0	0	0	0	
	May 2017	0.42	45.8	1.82	0.001	
	June 2017	0	0	0	0	
	July 2017	0	0	0	0	
	August 2017	0 ³	0	0	0	
	September 2017	29.7	44.9	0.03	0.001	
	Annual	30.1	91	0.15	0.0002	NA

Attachment G, Table G-1
Hydraulic Containment Extraction Well Operational Summary
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate ¹ (gpm)	Average Flow Rate ² (gpm)	Mass Removed (lbs)
EW-3	October 2016	0.03	3.23	1.79	0.0001	
	November 2016	0.03	3.42	1.90	0.0001	
	December 2016	0.11	16.4	2.48	0.0004	
	January 2017	1.31	129	1.65	0.003	
	February 2017	3.24	408	2.10	0.01	
	March 2017	0.87	116	2.23	0.003	
	April 2017	0	0	0	0	
	May 2017	0.94	141	2.50	0.003	
	June 2017	0	0	0	0	
	July 2017	0	0	0	0	
	August 2017	0 ³	0	0	0	
	September 2017	0	0	0	0	
	Annual	6.53	818	1.22	0.002	0.001
EW-4	October 2016	0.32	22.4	1.16	0.001	
	November 2016	1.15	484	7.02	0.01	
	December 2016	1.08	445	6.87	0.01	
	January 2017	2.68	1,071	6.66	0.02	
	February 2017	2.23	885	6.62	0.02	
	March 2017	1.07	444	6.92	0.01	
	April 2017	1.30	539	6.91	0.01	
	May 2017	1.26	531	7.02	0.01	
	June 2017	1.18	387	5.46	0.01	
	July 2017	1.14	439	6.42	0.01	
	August 2017	1.54	504	5.45	0.01	
	September 2017	1.40	537	6.39	0.01	
	Annual	16.4	6,289	6.08	0.01	0.004

Attachment G, Table G-1
Hydraulic Containment Extraction Well Operational Summary
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2016 - September 2017

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate ¹ (gpm)	Average Flow Rate ² (gpm)	Mass Removed (lbs)
EW-5	October 2016	9.37	3,110	5.53	0.07	
	November 2016	9.94	3,467	5.81	0.08	
	December 2016	8.43	2,494	4.93	0.06	
	January 2017	41.4	2,679	1.08	0.06	
	February 2017	70.8	2,981	0.70	0.07	
	March 2017	26.3	2,227	1.41	0.05	
	April 2017	8.32	2,838	5.68	0.07	
	May 2017	7.05	2,330	5.51	0.05	
	June 2017	10.1	2,689	4.46	0.06	
	July 2017	9.83	2,951	5.00	0.07	
	August 2017	9.96	2,901	4.85	0.06	
	September 2017	9.84	2,791	4.73	0.06	
	Annual	221	33,457	4.14	0.06	0.02

Notes:

1. Operational flow rate calculated from total gallons processed in the month and hours the pump actually operated in the month.
2. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of pump uptime.
3. Hour meter indicated the pump motor experienced short and intermittent periods of being energized, but the pump itself did not discharge.

All extraction wells operate on/off based on water levels measured by pressure transducers installed in each well.

NA = no analytical data available, no mass calculation performed

hrs = hours

gal = gallons

gpm = gallons per minute

Attachment G, Table G-2

Vapor Phase GAC Operational Data Demonstrating Substantive Compliance with SCAQMD Regulations
October 2016 - September 2017

SCAQMD Limit		1000	145			3.6		
HRA Changeout Criteria					12 ³		90 ³	
Date	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	Influent Vapor Temperature (°F)	Influent PID Measurement (ppmv)	Intermediate PID Measurement (ppmv)	Effluent PID Measurement (ppmv)	Lead VGAC Efficiency ¹ (%)	Overall VGAC Efficiency ² (%)
10/5/2016	11.7	522	101.0	0.035	0.000	0.000	100	100
10/12/2016	11.7	536	101.2	0.357	0.162	0.045	55	87
10/19/2016	11.7	812	99.8	0.603	0.000	0.000	100	100
10/26/2016	11.7	777	100.2	0.760	0.211	0.223	72	71
11/3/2016	11.6	828	97.6	2.463	0.125	0.080	95	97
11/9/2016	11.8	829	104.8	0.000	0.000	0.000	100	100
11/16/2016	11.6	806	99.2	0.000	0.000	0.000	100	100
11/22/2016	11.6	795	96.9	0.646	0.025	0.074	96	89
11/30/2016	11.6	793	96.8	0.624	0.429	0.117	31	81
12/13/2016	12.0	818	96.3	0.627	0.023	0.000	96	100
12/21/2016	12.1	821	96.8	0.591	0.182	0.171	69	71
12/28/2016	12.1	787	100.7	1.050	0.151	0.107	86	90
1/4/2017	12.0	800	95.6	0.857	0.022	0.054	97	94
1/10/2017	12.0	769	95.1	0.529	0.116	0.113	78	79
1/18/2017	12.0	797	94.3	0.807	0.174	0.111	78	86
1/25/2017	11.9	787	95.2	1.671	0.000	0.045	100	97
2/1/2017	12.0	780	96.8	0.313	0.000	0.077	100	75
2/9/2017	12.0	784	94.4	0.327	0.000	0.000	100	100
2/15/2017	12.0	794	96.1	0.000	0.000	0.000	100	100
2/22/2017	12.0	798	95.9	0.000	0.000	0.000	100	100
3/1/2017	12.0	787	95.7	0.671	0.060	0.069	91	90
3/8/2017	12.2	776	103.3	0.921	0.329	0.228	64	75
3/15/2017	12.1	824	106.4	0.815	0.066	0.032	92	96
3/29/2017	15.5	815	96.0	0.669	0.060	0.217	91	68
4/6/2017	15.3	793	97.3	0.655	0.094	0.121	86	82
4/13/2017	16.0	787	99.4	0.669	0.224	0.236	67	65
4/19/2017	15.9	797	98.7	0.919	0.000	0.000	100	100
4/26/2017	15.9	786	98.6	0.232	0.010	0.050	96	78

Attachment G, Table G-2
Vapor Phase GAC Operational Data Demonstrating Substantive Compliance with SCAQMD Regulations
October 2016 - September 2017

SCAQMD Limit		1000	145			3.6		
HRA Changeout Criteria					12 ³		90 ³	
Date	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	Influent Vapor Temperature (°F)	Influent PID Measurement (ppmv)	Intermediate PID Measurement (ppmv)	Effluent PID Measurement (ppmv)	Lead VGAC Efficiency ¹ (%)	Overall VGAC Efficiency ² (%)
5/19/2017	16.0	804	100.0	1.951	0.000	0.130	100	93
5/24/2017	16.3	699	103.2	2.118	0.000	0.000	100	100
5/31/2017	16.3	693	99.9	1.072	0.065	0.122	94	89
6/7/2017	16.5	698	101.9	1.446	0.135	0.244	91	83
6/14/2017	16.0	694	104.2	1.622	0.312	0.410	81	75
6/21/2017	16.3	695	104.3	1.115	0.000	0.063	100	94
6/29/2017	16.2	679	106.0	1.468	0.000	0.000	100	100
7/6/2017	16.4	675	106.1	0.674	0.014	0.031	98	95
7/12/2017	16.0	659	107.1	0.784	0.000	0.000	100	100
7/21/2017	16.0	659	106.3	1.337	0.346	0.350	74	74
7/26/2017	16.3	656	104.7	3.570	0.205	0.005	94	100
8/4/2017	16.6	676	108.6	1.580	0.483	0.163	69	90
8/9/2017	16.5	671	104.6	1.259	0.000	0.000	100	100
8/16/2017	16.6	662	104.8	1.011	0.000	0.000	100	100
8/23/2017	16.7	672	103.7	0.260	0.030	0.000	88	100
8/29/2017	16.9	663	107.8	0.946	0.322	0.283	66	70
9/7/2017	17.2	663	107.9	0.138	0.000	0.000	100	100
9/13/2017	17.1	665	106.1	0.557	0.000	0.338	100	39
9/20/2017	17.1	654	105.2	0.956	0.851	0.599	11	37
9/27/2017	17.1	675	104.0	0.604	0.000	0.405	100	33
Annual	14.2	738	101.0	0.881	0.109	0.111	88	87
Compliance with SCAQMD Limits?		YES	YES			YES		
Carbon changeout required this year?					NO		NO	

Notes:

°F = degrees Fahrenheit

VGAC = vapor phase granular activated carbon

SCFM = Standard Cubic Feet per Minute

GAC = granular activated carbon

PID = photoionization detector

ppmv = parts per million by volume as hexane

-- = Not measured

SCAQMD HRA = South Coast Air Quality Management District Health Risk Assessment

1. Lead VGAC efficiency is calculated by the PID readings between the influent and intermediate.

2. Overall VGAC efficiency is calculated by the PID readings between the influent and effluent.

3. These limits by the SCAQMD Health Risk Assessment are for determining when a carbon changeout is required. **BOTH** limits for intermediate PID concentration and the lead VGAC efficiency must be exceeded during the same sampling event for the changeout requirement to take effect.

Attachment H

Third Quarter Sanitation Districts of Los Angeles County Industrial Wastewater Self-Monitoring Report

OMEGA CHEMICAL SITE PRP ORGANIZED GROUP

1322 Scott Street, Suite 104
San Diego, Ca 92106
(619) 546-8377
(619) 546-9980 FAX
e-mail: edm@demaximis.com

October 16, 2017

Ms. Grace Robinson Hyde
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601-1400

Subject: Self-Monitoring Report -3rd Quarter 2017
 Permit Number 20039, Surcharge Account Number 2113183

Dear Ms. Grace Robinson Hyde,

This letter transmits the 3rd Quarter 2017 Self-Monitoring Report (SMR) for the Omega Chemical Site located at 12520 East Whittier Blvd, Whittier, California. Feel free to contact me if you need any additional information.

Sincerely,

Omega Chemical Site PRP Organized Group



Edward Modiano
Project Coordinator



GRACE ROBINSON HYDE
CHIEF ENGINEER
AND GENERAL MANAGER

Page 1 of 4
Permit Number:
20039
Facility ID:
2113183

For information, please call Loretta Benites
(562) 699-7411 Ext. 2927

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Reporting Period From: 07/01/2017 To: 09/30/2017 Report Due No Later Than : 10/16/2017

Company Name: Omega Chemical Site PRP Group LLC

Wastewater Discharge Address: 12520 WHITTIER Blvd Whittier, CA, 90602

Sample Location: **20039A**

Mailing Address: 1322 Scott Street # 104 San Diego, CA, 92106

Industrial Wastewater Contact Name and Phone Number: Mr. Ravi Subramanian

949-752-5452 x277 - Business

Has Ownership or Occupancy Changed Since the Last Report? Yes No

(Print) Name of Company Collecting Wastewater Sample:

(Print) Sample Date:

Test America

8/18/17

Daily Wastewater Discharge for Reporting Period

Average: **8033** GPD

Method For Determining Wastewater Flow for Sampling Day

Direct Measurement

Type of Composite Sample

Time Composite

Maximum: **11034** GPD

Adjusted Metered Water Supply

Flow Proportioned Composite

No Discharge During Reporting Period

Comments:

Parameter (1)	Sample Method (2)	Permit Limit (3)			Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
Z02 Sample Day Peak Flow					9.7		gpm	10256
Z01 Sample Day Total Flow					6991		GPD	10256
101 pH	GRAB	Federal Daily Minimum	5.0 S.U.	Local Daily Minimum	8.7	0.1	S.U.	10256
151 Solids, Suspended	COMPOSITE				8.8	1.0	mg/L	10256
252 Sulfide, Soluble	GRAB	Local	At Any Time	0.1 mg/L	ND	6.05	mg/L	10256
403 COD, Total	COMPOSITE				20	20	mg/L	10256
696 1,4-Dioxane	GRAB				35	2.5	ug/L	10256
T09 TTO, Volatile	GRAB	Local	At Any Time	1000 ug/L	LACSD calculates this value.		ug/L	
601 Methylene Chloride	GRAB				ND	5	ug/L	10256
602 Chloroform	GRAB				ND	1	ug/L	10256
603 1,1,1-Trichloroethane	GRAB				ND	1	ug/L	10256
604 Carbon Tetrachloride	GRAB				ND	.5	ug/L	10256
605 1,l-Dichloroethene	GRAB				ND	1	ug/L	10256
606 Trichloroethylene	GRAB				ND	1	ug/L	10256
607 Tetrachloroethylene	GRAB				ND	1	ug/L	10256
608 Bromodichloromethane	GRAB				ND	1	ug/L	10256
609 Dibromochloromethane	GRAB				ND	1	ug/L	10256
610 Bromoform	GRAB				ND	1	ug/L	10256
611 Chlorobenzene	GRAB				ND	1	ug/L	10256
612 Vinyl Chloride	GRAB				ND	.5	ug/L	10256
613 o-Dichlorobenzene	GRAB				ND	1	ug/L	10256
614 m-Dichlorobenzene	GRAB				ND	1	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/16/2017

Page 2 of 4

Permit Number:

20039

Facility ID:

2113183

Company Name: Omega Chemical Site PRP Group LLC

Sample Location: 20039A Reporting Period From: 07/01/2017 To: 09/30/2017

<u>Parameter (1)</u>	<u>Sample Method (2)</u>	<u>Permit Limit (3)</u>		<u>Test Results (4)</u>	<u>Reporting Limit (5)</u>	<u>Unit (6)</u>	<u>Lab ID Code (7)</u>
615 p-Dichlorobenzene	GRAB			ND	1	ug/L	10256
616 1,1-Dichloroethane	GRAB			ND	1	ug/L	10256
618 1,1,2-Trichloroethane	GRAB			ND	1	ug/L	10256
619 1,2-Dichloroethane	GRAB			ND	1	ug/L	10256
620 Benzene	GRAB			ND	.5	ug/L	10256
621 Toluene	GRAB			ND	1	ug/L	10256
624 Ethyl Benzene	GRAB			ND	1	ug/L	10256
645 trans-1,2-Dichloroethylene	GRAB			ND	1	ug/L	10256
646 Bromomethane	GRAB			ND	1	ug/L	10256
647 Chloroethane	GRAB			ND	1	ug/L	10256
648 2-Chloroethylvinylether	GRAB			ND	2	ug/L	10256
649 Chloromethane	GRAB			ND	1	ug/L	10256
650 1,2-Dichloropropane	GRAB			ND	1	ug/L	10256
651 cis-1,3-Dichloropropene	GRAB			ND	.5	ug/L	10256
652 trans-1,3-Dichloropropene	GRAB			ND	.5	ug/L	10256
653 1,1,2,2-Tetrachloroethane	GRAB			ND	1	ug/L	10256
T10 TTO, Semi-Volatile	GRAB	Local	At Any Time	1000 ug/L	LACSD calculates this value.	ug/L	
800 Acenaphthene	GRAB			ND	10	ug/L	10256
801 Acenaphthylene	GRAB			ND	10	ug/L	10256
802 Anthracene	GRAB			ND	10	ug/L	10256
803 Benzidine	GRAB			ND	41	ug/L	10256
804 Benzo(a)anthracene	GRAB			ND	10	ug/L	10256
805 Benzo(a)pyrene	GRAB			ND	10	ug/L	10256
806 Benzo(b)fluoranthene	GRAB			ND	10	ug/L	10256
807 Benzo(g.h.i.)perylene	GRAB			ND	10	ug/L	10256
808 Benzo(k)fluoranthene	GRAB			ND	10	ug/L	10256
809 Bis(2-cl-ethoxy)methane	GRAB			ND	10	ug/L	10256
810 Bis(2-chloroethyl)ether	GRAB			ND	10	ug/L	10256
811 Bis(2-cl-isopropyl)ether	GRAB			ND	10	ug/L	10256
812 bis(2-ethylhexyl) Phthalate	GRAB			ND	21	ug/L	10256
813 4-bromophenyl Phenylether	GRAB			ND	10	ug/L	10256
814 butylbenzyl Phthalate	GRAB			ND	21	ug/L	10256
815 2-Chloronaphthalene	GRAB			ND	10	ug/L	10256
816 4-Chlorophenylphenylether	GRAB			ND	10	ug/L	10256
817 Chrysene	GRAB			ND	10	ug/L	10256
818 dibenzo(a,h)Anthracene	GRAB			ND	21	ug/L	10256
822 3,3-Dichlorobenzidine	GRAB			ND	41	ug/L	10256
823 diethyl Phthalate	GRAB			ND	10	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/16/2017

Page 3 of 4

Permit Number:

20039

Facility ID:

2113183

Company Name: Omega Chemical Site PRP Group LLC

Sample Location: 20039A Reporting Period From: 07/01/2017 To: 09/30/2017

<u>Parameter (1)</u>	<u>Sample Method (2)</u>	<u>Permit Limit (3)</u>	<u>Test Results (4)</u>	<u>Reporting Limit (5)</u>	<u>Unit (6)</u>	<u>Lab ID Code (7)</u>
824 dimethyl Phthalate	GRAB		ND	10	ug/L	10256
825 di-n-butyl Phthalate	GRAB		ND	21	ug/L	10256
826 2,4-Dinitrotoluene	GRAB		ND	10	ug/L	10256
827 2,6-Dinitrotoluene	GRAB		ND	10	ug/L	10256
828 di-n-octyl Phthalate	GRAB		ND	21	ug/L	10256
829 1,2-Diphenylhydrazine	GRAB		ND	21	ug/L	10256
830 Fluoranthene	GRAB		ND	10	ug/L	10256
831 Fluorene	GRAB		ND	10	ug/L	10256
832 Hexachlorobenzene	GRAB		ND	10	ug/L	10256
833 Hexachlorobutadiene	GRAB		ND	10	ug/L	10256
834 Hexachlorocyclopentadiene	GRAB		ND	21	ug/L	10256
835 Hexachloroethane	GRAB		ND	10	ug/L	10256
836 Indeno(1,2,3-c,d)Pyrene	GRAB		ND	21	ug/L	10256
837 Isophorone	GRAB		ND	10	ug/L	10256
838 Naphthalene	GRAB		ND	10	ug/L	10256
839 Nitrobenzene	GRAB		ND	21	ug/L	10256
840 n-Nitrosodimethylamine	GRAB		ND	10	ug/L	10256
841 n-Nitrosodi-n-Propylamine	GRAB		ND	10	ug/L	10256
842 Phenanthrene	GRAB		ND	10	ug/L	10256
843 Pyrene	GRAB		ND	10	ug/L	10256
845 2-Chlorophenol (Organic-BNA)	GRAB		ND	10	ug/L	10256
846 1,2,4-Trichlorobenzene	GRAB		ND	10	ug/L	10256
847 2,4-Dichlorophenol (Organic-BNA)	GRAB		ND	10	ug/L	10256
848 2,4-Dimethylphenol (Organic-BNA)	GRAB		ND	21	ug/L	10256
849 2,4-Dinitrophenol	GRAB		ND	41	ug/L	10256
850 2-methyl-4,6-dinitrophenol	GRAB		ND	21	ug/L	10256
851 2-Nitrophenol	GRAB		ND	10	ug/L	10256
852 4-Nitrophenol	GRAB		ND	21	ug/L	10256
853 4-chloro-3-Methylphenol (Organic-BNA)	GRAB		ND	21	ug/L	10256
854 Pentachlorophenol (Organic-BNA)	GRAB		ND	21	ug/L	10256
855 Phenol	GRAB		ND	10	ug/L	10256
856 2,4,6-Trichlorophenol	GRAB		ND	21	ug/L	10256
857 n-Nitrosodiphenylamine	GRAB		ND	10	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/16/2017

Page 4 of 4

Permit Number:

20039

Facility ID:

2113183

Company Name: Omega Chemical Site PRP Group LLC

Sample Location: 20039A Reporting Period From: 07/01/2017 To: 09/30/2017

(1) Report the test results from the most recent sample collected within the reporting period and include all laboratory test sheets with the selfmonitoring report form.

(2) Test results are valid only if the correct sampling method is observed and the laboratory analysis is performed by a State or Sanitation Districts approved laboratory.

(3) Permit limits are included on this form for convenience. For a full list of all applicable permit limits, refer to your Permit Data Sheet.

(4) Enter "ND" (Non Detect) for any result less than (<) the reporting limit.

(5) If the test result is "ND", enter the reporting limit; otherwise leave blank. The reporting limit can be found in your laboratory test sheet.

(6) Default units are listed. Cross out and write in applicable units if laboratory did not report results with these same units.

(7) Indicate the appropriate laboratory certification I.D. code for each testing parameter.

CERTIFICATION BY PERMITTEE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of responsible company official:

Ed. Nodaine

Date: 10/16/17

Print name of official:

ED MOLAND

Title: *Project Coordinator*

LACSD USE ONLY

Lab Report? Yes No Signature? Yes No Date Received:

Monitoring ID: 555844

Initials: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-190535-1

Client Project/Site: Omega Chemical - ISCO/Composite & Grab

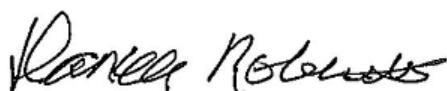
For:

Jacob & Hefner Associates P.C.

15375 Barranca Parkway, J-101

Irvine, California 92618

Attn: Trent Henderson



Authorized for release by:

8/25/2017 1:39:04 PM

Danielle Roberts, Senior Project Manager

(949)261-1022

danielle.roberts@testamericainc.com

LINKS

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The
Expert

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-190535-1	Water Composite	Water	08/18/17 08:00	08/18/17 11:15
440-190535-2	Water Grab	Water	08/18/17 08:10	08/18/17 11:15

1

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TestAmerica Irvine

Case Narrative

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Job ID: 440-190535-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-190535-1

Comments

No additional comments.

Receipt

The samples were received on 8/18/2017 11:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-424710 and analytical batch 440-425435. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 440-424710 and analytical batch 440-425435 recovered outside control limits for benzidine. Per the EPA method, this compound is subject to oxidative loss during sample preparation.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-424330 and analytical batch 440-424557. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Composite

Lab Sample ID: 440-190535-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	8.8		2.5	mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	20		20	mg/L	1		SM 5220D	Total/NA

Client Sample ID: Water Grab

Lab Sample ID: 440-190535-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Total Volatile Organic Compounds	160		150	ug/L	1		8260B	Total/NA
1,4-Dioxane	35		0.49	ug/L	1		8270C SIM	Total/NA
pH	8.7	HF	0.1	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Composite

Date Collected: 08/18/17 08:00

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	8.8		2.5	mg/L			08/23/17 11:19	1
Chemical Oxygen Demand	20		20	mg/L			08/21/17 15:00	1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 16:11	1
Acrolein	ND		5.0	ug/L			08/21/17 11:47	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
Acrylonitrile	ND		2.0	ug/L			08/21/17 11:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/21/17 16:11	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/21/17 11:47	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,1-Dichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,1-Dichloroethene	ND		1.0	ug/L			08/21/17 16:11	1
Total Volatile Organic Compounds	ND		150	ug/L			08/21/17 11:47	1
1,1-Dichloropropene	ND		1.0	ug/L			08/21/17 16:11	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/21/17 16:11	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dichloroethane	ND		1.0	ug/L			08/21/17 16:11	1
1,2-Dichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
1,3-Dichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
1,4-Dichlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
2,2-Dichloropropane	ND		1.0	ug/L			08/21/17 16:11	1
2-Chlorotoluene	ND		1.0	ug/L			08/21/17 16:11	1
4-Chlorotoluene	ND		1.0	ug/L			08/21/17 16:11	1
Acetone	ND		10	ug/L			08/21/17 16:11	1
Benzene	ND		0.50	ug/L			08/21/17 16:11	1
Bromobenzene	ND		1.0	ug/L			08/21/17 16:11	1
Bromochloromethane	ND		1.0	ug/L			08/21/17 16:11	1
Bromodichloromethane	ND		1.0	ug/L			08/21/17 16:11	1
Bromoform	ND		1.0	ug/L			08/21/17 16:11	1
Bromomethane	ND		1.0	ug/L			08/21/17 16:11	1
Carbon tetrachloride	ND		0.50	ug/L			08/21/17 16:11	1
Chlorobenzene	ND		1.0	ug/L			08/21/17 16:11	1
Chloroethane	ND		1.0	ug/L			08/21/17 16:11	1
Chloroform	ND		1.0	ug/L			08/21/17 16:11	1
Chloromethane	ND		1.0	ug/L			08/21/17 16:11	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	ug/L		08/21/17 16:11		1
cis-1,3-Dichloropropene	ND		0.50	ug/L		08/21/17 16:11		1
Dibromochloromethane	ND		1.0	ug/L		08/21/17 16:11		1
Dibromomethane	ND		1.0	ug/L		08/21/17 16:11		1
Dichlorodifluoromethane	ND		1.0	ug/L		08/21/17 16:11		1
Ethylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
Hexachlorobutadiene	ND		1.0	ug/L		08/21/17 16:11		1
Isopropylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
m,p-Xylene	ND		1.0	ug/L		08/21/17 16:11		1
Methylene Chloride	ND		5.0	ug/L		08/21/17 16:11		1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L		08/21/17 16:11		1
Naphthalene	ND		1.0	ug/L		08/21/17 16:11		1
n-Butylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
N-Propylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
o-Xylene	ND		1.0	ug/L		08/21/17 16:11		1
p-Isopropyltoluene	ND		1.0	ug/L		08/21/17 16:11		1
sec-Butylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
Styrene	ND		1.0	ug/L		08/21/17 16:11		1
tert-Butylbenzene	ND		1.0	ug/L		08/21/17 16:11		1
Tetrachloroethene	ND		1.0	ug/L		08/21/17 16:11		1
Toluene	ND		1.0	ug/L		08/21/17 16:11		1
Total Volatile Organic Compounds	160		150	ug/L		08/21/17 16:11		1
trans-1,2-Dichloroethene	ND		1.0	ug/L		08/21/17 16:11		1
trans-1,3-Dichloropropene	ND		0.50	ug/L		08/21/17 16:11		1
Trichloroethene	ND		1.0	ug/L		08/21/17 16:11		1
Trichlorofluoromethane	ND		1.0	ug/L		08/21/17 16:11		1
Vinyl chloride	ND		0.50	ug/L		08/21/17 16:11		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		08/21/17 11:47	1
Dibromofluoromethane (Surr)	105		76 - 132		08/21/17 11:47	1
Toluene-d8 (Surr)	107		80 - 128		08/21/17 11:47	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		08/21/17 11:47	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		08/21/17 16:11	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/21/17 16:11	1
Dibromofluoromethane (Surr)	108		76 - 132		08/21/17 16:11	1
Toluene-d8 (Surr)	88		80 - 128		08/21/17 16:11	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND	F1	250	ug/L		08/22/17 17:41		1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		08/22/17 17:41	1		
4-Bromofluorobenzene (Surr)	102		80 - 120		08/22/17 17:41	1		
Dibromofluoromethane (Surr)	108		76 - 132		08/22/17 17:41	1		
Toluene-d8 (Surr)	111		80 - 128		08/22/17 17:41	1		

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	35		0.49	ug/L		08/19/17 07:53	08/21/17 19:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	76		36 - 90			08/19/17 07:53	08/21/17 19:09	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,2-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,3-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
1,4-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4,5-Trichlorophenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4,6-Trichlorophenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dichlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dimethylphenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dinitrophenol	ND		41	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,4-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2,6-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Chloronaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Chlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Methylnaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Methylphenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Nitroaniline	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
2-Nitrophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
3,3'-Dichlorobenzidine	ND		41	ug/L		08/22/17 09:06	08/24/17 23:14	1
3-Methylphenol + 4-Methylphenol	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
3-Nitroaniline	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4,6-Dinitro-2-methylphenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Bromophenyl phenyl ether	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Chloro-3-methylphenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Chloroaniline	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Nitroaniline	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
4-Nitrophenol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
Acenaphthene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Acenaphthylene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Aniline	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Anthracene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzidine	ND *		41	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[a]anthracene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[a]pyrene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[b]fluoranthene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[g,h,i]perylene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzo[k]fluoranthene	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzoic acid	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
Benzyl alcohol	ND		21	ug/L		08/22/17 09:06	08/24/17 23:14	1
bis (2-chloroisopropyl) ether	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1
Bis(2-chloroethoxy)methane	ND		10	ug/L		08/22/17 09:06	08/24/17 23:14	1

TestAmerica Irvine

Client Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Bis(2-ethylhexyl) phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Butyl benzyl phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Chrysene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Dibenz(a,h)anthracene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Dibenzofuran	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Diethyl phthalate	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Dimethyl phthalate	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Di-n-butyl phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Di-n-octyl phthalate	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Fluoranthene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Fluorene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachlorobenzene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachlorobutadiene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachlorocyclopentadiene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Hexachloroethane	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Indeno[1,2,3-cd]pyrene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Isophorone	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Naphthalene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Nitrobenzene	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
N-Nitrosodimethylamine	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
N-Nitrosodi-n-propylamine	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
N-Nitrosodiphenylamine	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Pentachlorophenol	ND		21	ug/L	08/22/17 09:06	08/24/17 23:14		1
Phenanthere	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Phenol	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1
Pyrene	ND		10	ug/L	08/22/17 09:06	08/24/17 23:14		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		40 - 120	08/22/17 09:06	08/24/17 23:14	1
2-Fluorobiphenyl	72		50 - 120	08/22/17 09:06	08/24/17 23:14	1
2-Fluorophenol (Surr)	64		30 - 120	08/22/17 09:06	08/24/17 23:14	1
Nitrobenzene-d5 (Surr)	72		45 - 120	08/22/17 09:06	08/24/17 23:14	1
Phenol-d6 (Surr)	67		35 - 120	08/22/17 09:06	08/24/17 23:14	1
Terphenyl-d14 (Surr)	76		10 - 150	08/22/17 09:06	08/24/17 23:14	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7	HF	0.1	SU		08/21/17 14:46		1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	F1 HF	0.050	mg/L		08/21/17 12:46	08/21/17 17:22	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (70-130)	BFB (80-120)	DBFM (76-132)	TOL (80-128)
440-190394-A-1 MS	Matrix Spike	93	98	98	97
440-190394-A-1 MSD	Matrix Spike Duplicate	94	101	98	97
440-190411-C-2 MS	Matrix Spike	117	99	113	102
440-190411-C-2 MSD	Matrix Spike Duplicate	119	101	111	98
440-190535-2 - RA	Water Grab	104	102	108	111
440-190535-2	Water Grab	102	98	105	107
440-190535-2	Water Grab	109	94	108	88
440-190535-2 MS	Water Grab	99	100	106	106
440-190535-2 MSD	Water Grab	98	98	106	107
LCS 440-424347/6	Lab Control Sample	97	101	106	109
LCS 440-424411/5	Lab Control Sample	96	102	102	98
LCS 440-424413/5	Lab Control Sample	103	97	101	90
MB 440-424347/4	Method Blank	98	102	105	110
MB 440-424411/4	Method Blank	99	100	99	107
MB 440-424413/4	Method Blank	108	94	106	86

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (40-120)	FBP (50-120)	2FP (30-120)	NBZ (45-120)	PHL (35-120)	TPH (10-150)
440-190535-2	Water Grab	74	72	64	72	67	76
LCS 440-424710/2-A	Lab Control Sample	80	75	64	73	71	77
LCSD 440-424710/3-A	Lab Control Sample Dup	82	78	64	76	70	79
MB 440-424710/1-A	Method Blank	84	83	76	80	77	93

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d6 (Surr)

TPH = Terphenyl-d14 (Surr)

Method: 8270C SIM - 1,4 Dioxane by SIM

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		14DD8 (36-90)					
440-190535-2	Water Grab	76					
LCS 440-424330/2-A	Lab Control Sample	73					
LCSD 440-424330/3-A	Lab Control Sample Dup	75					

TestAmerica Irvine

Surrogate Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)				
Lab Sample ID	Client Sample ID	14DD8 (36-90)	_____	_____	_____	_____
MB 440-424330/1-A	Method Blank	73	_____	_____	_____	_____

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Client Sample ID: Water Composite

Date Collected: 08/18/17 08:00

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	400 mL	1000 mL	425034	08/23/17 11:19	EC1	TAL IRV
Total/NA	Analysis	SM 5220D		1	2.5 mL	2.5 mL	424545	08/21/17 15:00	KYP	TAL IRV

Client Sample ID: Water Grab

Date Collected: 08/18/17 08:10

Date Received: 08/18/17 11:15

Lab Sample ID: 440-190535-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	424411	08/21/17 11:47	HR	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	424413	08/21/17 16:11	MF	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	424347	08/22/17 17:41	AA	TAL IRV
Total/NA	Prep	3520C			975 mL	2.0 mL	424710	08/22/17 09:06	BMN	TAL IRV
Total/NA	Analysis	8270C		1			425435	08/24/17 23:14	DF	TAL IRV
Total/NA	Prep	3520C			1025 mL	1.0 mL	424330	08/19/17 07:53	JS1	TAL IRV
Total/NA	Analysis	8270C SIM		1			424557	08/21/17 19:09	HN	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			424501	08/21/17 14:46	ST	TAL IRV
Dissolved	Prep	SM 4500 S2 B			7.5 mL	7.5 mL	424512	08/21/17 12:46	HTL	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	424594	08/21/17 17:22	HTL	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-424347/4

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Isopropyl alcohol	ND		250	ug/L			08/22/17 16:17	1
Surrogate								
1,2-Dichloroethane-d4 (Surr)	98		70 - 130			Prepared	08/22/17 16:17	1
4-Bromofluorobenzene (Surr)	102		80 - 120				08/22/17 16:17	1
Dibromofluoromethane (Surr)	105		76 - 132				08/22/17 16:17	1
Toluene-d8 (Surr)	110		80 - 128				08/22/17 16:17	1

Lab Sample ID: LCS 440-424347/6

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	%Rec. Limits
	%Recovery	Qualifier							
Isopropyl alcohol	ND		250	225	J	ug/L		90	49 - 142
Surrogate									
1,2-Dichloroethane-d4 (Surr)	97		70 - 130						
4-Bromofluorobenzene (Surr)	101		80 - 120						
Dibromofluoromethane (Surr)	106		76 - 132						
Toluene-d8 (Surr)	109		80 - 128						

Lab Sample ID: 440-190535-2 MS

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Water Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	%Rec. Limits
	%Recovery	Qualifier							
Isopropyl alcohol	ND	F1	250	357	F1	ug/L		143	46 - 142
Surrogate									
1,2-Dichloroethane-d4 (Surr)	99		70 - 130						
4-Bromofluorobenzene (Surr)	100		80 - 120						
Dibromofluoromethane (Surr)	106		76 - 132						
Toluene-d8 (Surr)	106		80 - 128						

Lab Sample ID: 440-190535-2 MSD

Matrix: Water

Analysis Batch: 424347

Client Sample ID: Water Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	%Rec. Limits	RPD	Limit
	%Recovery	Qualifier									
Isopropyl alcohol	ND	F1	250	335		ug/L		134	46 - 142	6	40
Surrogate											
1,2-Dichloroethane-d4 (Surr)	98		70 - 130								
4-Bromofluorobenzene (Surr)	98		80 - 120								
Dibromofluoromethane (Surr)	106		76 - 132								
Toluene-d8 (Surr)	107		80 - 128								

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424411/4

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		5.0	ug/L			08/21/17 08:32	1
Acrylonitrile	ND		2.0	ug/L			08/21/17 08:32	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/21/17 08:32	1
Total Volatile Organic Compounds	ND		150	ug/L			08/21/17 08:32	1

Surrogate	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		08/21/17 08:32	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/21/17 08:32	1
Dibromofluoromethane (Surr)	99		76 - 132		08/21/17 08:32	1
Toluene-d8 (Surr)	107		80 - 128		08/21/17 08:32	1

Lab Sample ID: LCS 440-424411/5

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Acrolein		25.0	22.4		ug/L		90	10 - 145
Acrylonitrile		250	234		ug/L		94	48 - 140
2-Chloroethyl vinyl ether		25.0	24.1		ug/L		97	37 - 150

Surrogate	%Recovery	LCS Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	96		70 - 130					
4-Bromofluorobenzene (Surr)	102		80 - 120					
Dibromofluoromethane (Surr)	102		76 - 132					
Toluene-d8 (Surr)	98		80 - 128					

Lab Sample ID: 440-190394-A-1 MS

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
Acrolein	ND		25.0	22.0		ug/L		88	10 - 147
Acrylonitrile	ND		250	195		ug/L		78	38 - 144
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		4	10 - 140

Surrogate	%Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	93		70 - 130						
4-Bromofluorobenzene (Surr)	98		80 - 120						
Dibromofluoromethane (Surr)	98		76 - 132						
Toluene-d8 (Surr)	97		80 - 128						

Lab Sample ID: 440-190394-A-1 MSD

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD
								Limits	Limit
Acrolein	ND		25.0	25.3		ug/L		101	10 - 147

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190394-A-1 MSD

Matrix: Water

Analysis Batch: 424411

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acrylonitrile	ND		250	208		ug/L	83	38 - 144	6	40	
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L	0	10 - 140	NC	35	
Surrogate											
1,2-Dichloroethane-d4 (Surr)	94			70 - 130							
4-Bromofluorobenzene (Surr)	101			80 - 120							
Dibromofluoromethane (Surr)	98			76 - 132							
Toluene-d8 (Surr)	97			80 - 128							

Lab Sample ID: MB 440-424413/4

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/21/17 11:16	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1-Dichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,1-Dichloroethene	ND		1.0	ug/L			08/21/17 11:16	1
1,1-Dichloropropene	ND		1.0	ug/L			08/21/17 11:16	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/21/17 11:16	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dichloroethane	ND		1.0	ug/L			08/21/17 11:16	1
1,2-Dichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
1,3-Dichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
1,4-Dichlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
2,2-Dichloropropane	ND		1.0	ug/L			08/21/17 11:16	1
2-Chlorotoluene	ND		1.0	ug/L			08/21/17 11:16	1
4-Chlorotoluene	ND		1.0	ug/L			08/21/17 11:16	1
Acetone	ND		10	ug/L			08/21/17 11:16	1
Benzene	ND		0.50	ug/L			08/21/17 11:16	1
Bromobenzene	ND		1.0	ug/L			08/21/17 11:16	1
Bromochloromethane	ND		1.0	ug/L			08/21/17 11:16	1
Bromodichloromethane	ND		1.0	ug/L			08/21/17 11:16	1
Bromoform	ND		1.0	ug/L			08/21/17 11:16	1
Bromomethane	ND		1.0	ug/L			08/21/17 11:16	1
Carbon tetrachloride	ND		0.50	ug/L			08/21/17 11:16	1
Chlorobenzene	ND		1.0	ug/L			08/21/17 11:16	1
Chloroethane	ND		1.0	ug/L			08/21/17 11:16	1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424413/4

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND				1.0	ug/L		08/21/17 11:16		1
Chloromethane	ND				1.0	ug/L		08/21/17 11:16		1
cis-1,2-Dichloroethene	ND				1.0	ug/L		08/21/17 11:16		1
cis-1,3-Dichloropropene	ND				0.50	ug/L		08/21/17 11:16		1
Dibromochloromethane	ND				1.0	ug/L		08/21/17 11:16		1
Dibromomethane	ND				1.0	ug/L		08/21/17 11:16		1
Dichlorodifluoromethane	ND				1.0	ug/L		08/21/17 11:16		1
Ethylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
Hexachlorobutadiene	ND				1.0	ug/L		08/21/17 11:16		1
Isopropylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
m,p-Xylene	ND				1.0	ug/L		08/21/17 11:16		1
Methylene Chloride	ND				5.0	ug/L		08/21/17 11:16		1
Methyl-t-Butyl Ether (MTBE)	ND				1.0	ug/L		08/21/17 11:16		1
Naphthalene	ND				1.0	ug/L		08/21/17 11:16		1
n-Butylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
N-Propylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
o-Xylene	ND				1.0	ug/L		08/21/17 11:16		1
p-Isopropyltoluene	ND				1.0	ug/L		08/21/17 11:16		1
sec-Butylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
Styrene	ND				1.0	ug/L		08/21/17 11:16		1
tert-Butylbenzene	ND				1.0	ug/L		08/21/17 11:16		1
Tetrachloroethene	ND				1.0	ug/L		08/21/17 11:16		1
Toluene	ND				1.0	ug/L		08/21/17 11:16		1
Total Volatile Organic Compounds	ND				150	ug/L		08/21/17 11:16		1
trans-1,2-Dichloroethene	ND				1.0	ug/L		08/21/17 11:16		1
trans-1,3-Dichloropropene	ND				0.50	ug/L		08/21/17 11:16		1
Trichloroethene	ND				1.0	ug/L		08/21/17 11:16		1
Trichlorofluoromethane	ND				1.0	ug/L		08/21/17 11:16		1
Vinyl chloride	ND				0.50	ug/L		08/21/17 11:16		1

Surrogate	MB	MB	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		108		70 - 130			08/21/17 11:16	1
4-Bromofluorobenzene (Surr)	94		94		80 - 120			08/21/17 11:16	1
Dibromofluoromethane (Surr)	106		106		76 - 132			08/21/17 11:16	1
Toluene-d8 (Surr)	86		86		80 - 128			08/21/17 11:16	1

Lab Sample ID: LCS 440-424413/5

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added									
1,1,1,2-Tetrachloroethane	25.0		27.4			ug/L		110	60 - 141	
1,1,1-Trichloroethane	25.0		27.1			ug/L		108	70 - 130	
1,1,2,2-Tetrachloroethane	25.0		22.1			ug/L		88	63 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0		24.1			ug/L		96	60 - 140	
1,1,2-Trichloroethane	25.0		25.5			ug/L		102	70 - 130	
1,1-Dichloroethane	25.0		23.8			ug/L		95	64 - 130	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-424413/5

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1-Dichloroethene	25.0	24.0		ug/L		96	70 - 130	
1,1-Dichloropropene	25.0	26.6		ug/L		106	70 - 130	
1,2,3-Trichlorobenzene	25.0	27.0		ug/L		108	60 - 140	
1,2,3-Trichloropropane	25.0	24.4		ug/L		98	63 - 130	
1,2,4-Trichlorobenzene	25.0	27.0		ug/L		108	60 - 140	
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 135	
1,2-Dibromo-3-Chloropropane	25.0	23.8		ug/L		95	52 - 140	
1,2-Dibromoethane (EDB)	25.0	25.4		ug/L		102	70 - 130	
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	
1,2-Dichloroethane	25.0	27.3		ug/L		109	57 - 138	
1,2-Dichloropropane	25.0	22.7		ug/L		91	67 - 130	
1,3,5-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 136	
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	70 - 130	
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	
2,2-Dichloropropane	25.0	26.1		ug/L		104	68 - 141	
2-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130	
4-Chlorotoluene	25.0	26.8		ug/L		107	70 - 130	
Acetone	25.0	23.3		ug/L		93	10 - 150	
Benzene	25.0	23.8		ug/L		95	68 - 130	
Bromobenzene	25.0	25.5		ug/L		102	70 - 130	
Bromochloromethane	25.0	26.0		ug/L		104	70 - 130	
Bromodichloromethane	25.0	27.6		ug/L		110	70 - 132	
Bromoform	25.0	29.8		ug/L		119	60 - 148	
Bromomethane	25.0	27.3		ug/L		109	64 - 139	
Carbon tetrachloride	25.0	27.5		ug/L		110	60 - 150	
Chlorobenzene	25.0	24.5		ug/L		98	70 - 130	
Chloroethane	25.0	29.0		ug/L		116	64 - 135	
Chloroform	25.0	24.9		ug/L		100	70 - 130	
Chloromethane	25.0	20.0		ug/L		80	47 - 140	
cis-1,2-Dichloroethene	25.0	26.2		ug/L		105	70 - 133	
cis-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 133	
Dibromochloromethane	25.0	27.2		ug/L		109	69 - 145	
Dibromomethane	25.0	25.8		ug/L		103	70 - 130	
Dichlorodifluoromethane	25.0	22.6		ug/L		90	29 - 150	
Ethylbenzene	25.0	27.1		ug/L		108	70 - 130	
Hexachlorobutadiene	25.0	25.5		ug/L		102	10 - 150	
Isopropylbenzene	25.0	27.1		ug/L		108	70 - 136	
m,p-Xylene	25.0	27.0		ug/L		108	70 - 130	
Methylene Chloride	25.0	23.5		ug/L		94	52 - 130	
Methyl-t-Butyl Ether (MTBE)	25.0	28.2		ug/L		113	63 - 131	
Naphthalene	25.0	25.1		ug/L		100	60 - 140	
n-Butylbenzene	25.0	24.7		ug/L		99	65 - 150	
N-Propylbenzene	25.0	24.2		ug/L		97	67 - 139	
o-Xylene	25.0	28.4		ug/L		114	70 - 130	
p-Isopropyltoluene	25.0	26.8		ug/L		107	70 - 132	
sec-Butylbenzene	25.0	23.8		ug/L		95	70 - 138	
Styrene	25.0	27.7		ug/L		111	70 - 134	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-424413/5

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
tert-Butylbenzene	25.0	24.7		ug/L	99	70 - 130	
Tetrachloroethene	25.0	26.2		ug/L	105	70 - 130	
Toluene	25.0	26.3		ug/L	105	70 - 130	
trans-1,2-Dichloroethene	25.0	25.4		ug/L	101	70 - 130	
trans-1,3-Dichloropropene	25.0	27.8		ug/L	111	70 - 132	
Trichloroethene	25.0	25.1		ug/L	100	70 - 130	
Trichlorofluoromethane	25.0	29.0		ug/L	116	60 - 150	
Vinyl chloride	25.0	25.3		ug/L	101	59 - 133	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	101		76 - 132
Toluene-d8 (Surr)	90		80 - 128

Lab Sample ID: 440-190411-C-2 MS

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		25.0	28.7		ug/L		115	60 - 149
1,1,1-Trichloroethane	ND		25.0	30.1		ug/L		120	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	23.7		ug/L		95	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	25.6		ug/L		103	60 - 140
1,1,2-Trichloroethane	ND		25.0	25.2		ug/L		101	70 - 130
1,1-Dichloroethane	ND		25.0	26.1		ug/L		104	65 - 130
1,1-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
1,1-Dichloropropene	ND		25.0	28.9		ug/L		116	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	31.1		ug/L		124	60 - 140
1,2,3-Trichloropropane	ND		25.0	27.4		ug/L		109	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	30.7		ug/L		123	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	27.5		ug/L		110	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	26.7		ug/L		107	70 - 131
1,2-Dichlorobenzene	ND		25.0	27.2		ug/L		109	70 - 130
1,2-Dichloroethane	21		25.0	48.4		ug/L		109	56 - 146
1,2-Dichloropropane	ND		25.0	24.8		ug/L		99	69 - 130
1,3,5-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130
1,3-Dichlorobenzene	ND		25.0	27.2		ug/L		109	70 - 130
1,3-Dichloropropane	ND		25.0	25.1		ug/L		101	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.7		ug/L		107	70 - 130
2,2-Dichloropropane	ND		25.0	28.5		ug/L		114	69 - 138
2-Chlorotoluene	ND		25.0	27.1		ug/L		108	70 - 130
4-Chlorotoluene	ND		25.0	28.7		ug/L		115	70 - 130
Acetone	ND		25.0	28.4		ug/L		113	10 - 150
Benzene	ND		25.0	25.8		ug/L		103	66 - 130
Bromobenzene	ND		25.0	27.4		ug/L		110	70 - 130

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190411-C-2 MS

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Bromochloromethane	ND		25.0	27.0		ug/L		108	70 - 130
Bromodichloromethane	ND		25.0	29.5		ug/L		118	70 - 138
Bromoform	ND		25.0	30.4		ug/L		122	59 - 150
Bromomethane	ND		25.0	29.1		ug/L		116	62 - 131
Carbon tetrachloride	ND		25.0	29.6		ug/L		118	60 - 150
Chlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130
Chloroethane	ND		25.0	31.3		ug/L		125	68 - 130
Chloroform	ND		25.0	27.1		ug/L		108	70 - 130
Chloromethane	ND		25.0	22.5		ug/L		90	39 - 144
cis-1,2-Dichloroethene	ND		25.0	27.9		ug/L		112	70 - 130
cis-1,3-Dichloropropene	ND		25.0	28.1		ug/L		112	70 - 133
Dibromochloromethane	ND		25.0	28.0		ug/L		112	70 - 148
Dibromomethane	ND		25.0	27.5		ug/L		110	70 - 130
Dichlorodifluoromethane	ND		25.0	25.5		ug/L		102	25 - 142
Ethylbenzene	ND		25.0	29.0		ug/L		113	70 - 130
Hexachlorobutadiene	ND		25.0	28.7		ug/L		115	10 - 150
Isopropylbenzene	ND		25.0	28.8		ug/L		114	70 - 132
m,p-Xylene	ND		25.0	29.0		ug/L		116	70 - 133
Methylene Chloride	ND		25.0	26.4		ug/L		106	52 - 130
Methyl-t-Butyl Ether (MTBE)	140		25.0	154	4	ug/L		60	70 - 130
Naphthalene	ND		25.0	28.7		ug/L		115	60 - 140
n-Butylbenzene	ND		25.0	26.9		ug/L		108	61 - 149
N-Propylbenzene	ND		25.0	26.0		ug/L		103	66 - 135
o-Xylene	ND		25.0	29.6		ug/L		118	70 - 133
p-Isopropyltoluene	ND		25.0	28.8		ug/L		115	70 - 130
sec-Butylbenzene	ND		25.0	25.6		ug/L		102	67 - 134
Styrene	ND		25.0	28.7		ug/L		115	29 - 150
tert-Butylbenzene	ND		25.0	26.2		ug/L		105	70 - 130
Tetrachloroethene	ND		25.0	27.0		ug/L		108	70 - 137
Toluene	ND		25.0	27.4		ug/L		110	70 - 130
trans-1,2-Dichloroethene	ND		25.0	27.5		ug/L		110	70 - 130
trans-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	70 - 138
Trichloroethene	ND		25.0	27.4		ug/L		110	70 - 130
Trichlorofluoromethane	ND		25.0	31.4		ug/L		125	60 - 150
Vinyl chloride	ND		25.0	27.0		ug/L		108	50 - 137
Surrogate		MS	MS						
		%Recovery	Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)		117		70 - 130					
4-Bromofluorobenzene (Surr)		99		80 - 120					
Dibromofluoromethane (Surr)		113		76 - 132					
Toluene-d8 (Surr)		102		80 - 128					

Lab Sample ID: 440-190411-C-2 MSD

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		25.0	27.6		ug/L		110	60 - 149

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190411-C-2 MSD

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1-Trichloroethane	ND		25.0	28.7		ug/L	115	70 - 130	5	20	
1,1,2,2-Tetrachloroethane	ND		25.0	23.7		ug/L	95	63 - 130	0	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	25.3		ug/L	101	60 - 140	1	20	
1,1,2-Trichloroethane	ND		25.0	25.6		ug/L	103	70 - 130	2	25	
1,1-Dichloroethane	ND		25.0	25.4		ug/L	102	65 - 130	3	20	
1,1-Dichloroethene	ND		25.0	25.1		ug/L	100	70 - 130	5	20	
1,1-Dichloropropene	ND		25.0	28.0		ug/L	112	64 - 130	3	20	
1,2,3-Trichlorobenzene	ND		25.0	30.5		ug/L	122	60 - 140	2	20	
1,2,3-Trichloropropane	ND		25.0	26.8		ug/L	107	60 - 130	2	30	
1,2,4-Trichlorobenzene	ND		25.0	30.1		ug/L	121	60 - 140	2	20	
1,2,4-Trimethylbenzene	ND		25.0	26.9		ug/L	107	70 - 130	1	25	
1,2-Dibromo-3-Chloropropane	ND		25.0	27.1		ug/L	108	48 - 140	2	30	
1,2-Dibromoethane (EDB)	ND		25.0	25.6		ug/L	102	70 - 131	4	25	
1,2-Dichlorobenzene	ND		25.0	27.6		ug/L	111	70 - 130	2	20	
1,2-Dichloroethane	21		25.0	47.6		ug/L	106	56 - 146	2	20	
1,2-Dichloropropane	ND		25.0	24.5		ug/L	98	69 - 130	1	20	
1,3,5-Trimethylbenzene	ND		25.0	26.5		ug/L	106	70 - 130	2	20	
1,3-Dichlorobenzene	ND		25.0	26.4		ug/L	106	70 - 130	3	20	
1,3-Dichloropropane	ND		25.0	24.2		ug/L	97	70 - 130	4	25	
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L	105	70 - 130	2	20	
2,2-Dichloropropane	ND		25.0	27.3		ug/L	109	69 - 138	4	25	
2-Chlorotoluene	ND		25.0	27.3		ug/L	109	70 - 130	1	20	
4-Chlorotoluene	ND		25.0	28.5		ug/L	114	70 - 130	1	20	
Acetone	ND		25.0	25.9		ug/L	104	10 - 150	9	35	
Benzene	ND		25.0	26.1		ug/L	105	66 - 130	1	20	
Bromobenzene	ND		25.0	27.0		ug/L	108	70 - 130	1	20	
Bromochloromethane	ND		25.0	27.9		ug/L	112	70 - 130	3	25	
Bromodichloromethane	ND		25.0	29.3		ug/L	117	70 - 138	1	20	
Bromoform	ND		25.0	30.5		ug/L	122	59 - 150	0	25	
Bromomethane	ND		25.0	28.6		ug/L	115	62 - 131	2	25	
Carbon tetrachloride	ND		25.0	28.9		ug/L	116	60 - 150	2	25	
Chlorobenzene	ND		25.0	24.7		ug/L	99	70 - 130	4	20	
Chloroethane	ND		25.0	30.6		ug/L	122	68 - 130	2	25	
Chloroform	ND		25.0	26.8		ug/L	107	70 - 130	1	20	
Chloromethane	ND		25.0	24.0		ug/L	96	39 - 144	7	25	
cis-1,2-Dichloroethene	ND		25.0	28.0		ug/L	112	70 - 130	0	20	
cis-1,3-Dichloropropene	ND		25.0	26.9		ug/L	108	70 - 133	4	20	
Dibromochloromethane	ND		25.0	27.4		ug/L	110	70 - 148	2	25	
Dibromomethane	ND		25.0	27.2		ug/L	109	70 - 130	1	25	
Dichlorodifluoromethane	ND		25.0	23.3		ug/L	93	25 - 142	9	30	
Ethylbenzene	ND		25.0	27.8		ug/L	108	70 - 130	4	20	
Hexachlorobutadiene	ND		25.0	28.2		ug/L	113	10 - 150	2	20	
Isopropylbenzene	ND		25.0	27.6		ug/L	109	70 - 132	4	20	
m,p-Xylene	ND		25.0	27.8		ug/L	111	70 - 133	4	25	
Methylene Chloride	ND		25.0	27.4		ug/L	110	52 - 130	4	20	
Methyl-t-Butyl Ether (MTBE)	140		25.0	158.4		ug/L	74	70 - 130	2	25	
Naphthalene	ND		25.0	28.5		ug/L	114	60 - 140	1	30	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-190411-C-2 MSD

Matrix: Water

Analysis Batch: 424413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
n-Butylbenzene	ND		25.0	26.6		ug/L		107	61 - 149	1	20
N-Propylbenzene	ND		25.0	25.9		ug/L		102	66 - 135	0	20
o-Xylene	ND		25.0	28.2		ug/L		113	70 - 133	5	20
p-Isopropyltoluene	ND		25.0	28.3		ug/L		113	70 - 130	2	20
sec-Butylbenzene	ND		25.0	25.4		ug/L		101	67 - 134	1	20
Styrene	ND		25.0	27.7		ug/L		111	29 - 150	4	35
tert-Butylbenzene	ND		25.0	26.4		ug/L		106	70 - 130	1	20
Tetrachloroethene	ND		25.0	26.2		ug/L		105	70 - 137	3	20
Toluene	ND		25.0	26.5		ug/L		106	70 - 130	3	20
trans-1,2-Dichloroethene	ND		25.0	27.6		ug/L		110	70 - 130	0	20
trans-1,3-Dichloropropene	ND		25.0	28.1		ug/L		112	70 - 138	3	25
Trichloroethene	ND		25.0	27.4		ug/L		110	70 - 130	0	20
Trichlorofluoromethane	ND		25.0	30.0		ug/L		120	60 - 150	4	25
Vinyl chloride	ND		25.0	27.7		ug/L		111	50 - 137	3	30
Surrogate											
	MSD	MSD									
	%Recovery	Qualifier			Limits						
1,2-Dichloroethane-d4 (Surr)	119				70 - 130						
4-Bromofluorobenzene (Surr)	101				80 - 120						
Dibromofluoromethane (Surr)	111				76 - 132						
Toluene-d8 (Surr)	98				80 - 128						

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-424710/1-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424710

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,2,4-Trichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,2-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,3-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
1,4-Dichlorobenzene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4,5-Trichlorophenol	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4,6-Trichlorophenol	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dichlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dimethylphenol	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dinitrophenol	ND		40	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,4-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2,6-Dinitrotoluene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Chloronaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Chlorophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Methylnaphthalene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Methylphenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Nitroaniline	ND		20	ug/L		08/22/17 09:06	08/24/17 21:43	1
2-Nitrophenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
3,3'-Dichlorobenzidine	ND		40	ug/L		08/22/17 09:06	08/24/17 21:43	1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424710/1-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 424710

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifer						Prepared	Analyzed	Dil Fac
3-Methylphenol + 4-Methylphenol	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
3-Nitroaniline	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4,6-Dinitro-2-methylphenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Bromophenyl phenyl ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Chloro-3-methylphenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Chloroaniline	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Chlorophenyl phenyl ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Nitroaniline	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
4-Nitrophenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Acenaphthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Acenaphthylene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Aniline	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Anthracene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzidine	ND		ND		40	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[a]anthracene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[a]pyrene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[b]fluoranthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[g,h,i]perylene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzo[k]fluoranthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzoic acid	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Benzyl alcohol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
bis (2-chloroisopropyl) ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Bis(2-chloroethoxy)methane	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Bis(2-chloroethyl)ether	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Bis(2-ethylhexyl) phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Butyl benzyl phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Chrysene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Dibenz(a,h)anthracene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Dibenzofuran	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Diethyl phthalate	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Dimethyl phthalate	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Di-n-butyl phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Di-n-octyl phthalate	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Fluoranthene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Fluorene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachlorobenzene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachlorobutadiene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachlorocyclopentadiene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Hexachloroethane	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Indeno[1,2,3-cd]pyrene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Isophorone	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Naphthalene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Nitrobenzene	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
N-Nitrosodimethylamine	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
N-Nitrosodi-n-propylamine	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
N-Nitrosodiphenylamine	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1
Pentachlorophenol	ND		ND		20	ug/L	08/22/17 09:06	08/24/17 21:43		1
Phenanthrene	ND		ND		10	ug/L	08/22/17 09:06	08/24/17 21:43		1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-424710/1-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 424710

Analyte	MB		RL	Unit	D	Prepared		Dil Fac
	Result	Qualifier				Prepared	Analyzed	
Phenol	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1
Pyrene	ND		10	ug/L		08/22/17 09:06	08/24/17 21:43	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	84		40 - 120	08/22/17 09:06	08/24/17 21:43	1
2-Fluorobiphenyl	83		50 - 120	08/22/17 09:06	08/24/17 21:43	1
2-Fluorophenol (Surr)	76		30 - 120	08/22/17 09:06	08/24/17 21:43	1
Nitrobenzene-d5 (Surr)	80		45 - 120	08/22/17 09:06	08/24/17 21:43	1
Phenol-d6 (Surr)	77		35 - 120	08/22/17 09:06	08/24/17 21:43	1
Terphenyl-d14 (Surr)	93		10 - 150	08/22/17 09:06	08/24/17 21:43	1

Lab Sample ID: LCS 440-424710/2-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 424710

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
1,2,4-Trichlorobenzene	100	66.0		ug/L		66	25 - 84	
1,2-Dichlorobenzene	100	63.0		ug/L		63	24 - 85	
1,2-Diphenylhydrazine(as Azobenzene)	101	83.2		ug/L		82	44 - 113	
1,3-Dichlorobenzene	100	60.8		ug/L		61	20 - 80	
1,4-Dichlorobenzene	100	60.5		ug/L		61	22 - 81	
2,4,5-Trichlorophenol	100	78.7		ug/L		79	24 - 121	
2,4,6-Trichlorophenol	100	79.3		ug/L		79	20 - 121	
2,4-Dichlorophenol	100	75.9		ug/L		76	23 - 113	
2,4-Dimethylphenol	100	76.5		ug/L		76	39 - 94	
2,4-Dinitrophenol	200	162		ug/L		81	23 - 134	
2,4-Dinitrotoluene	100	79.8		ug/L		80	54 - 115	
2,6-Dinitrotoluene	100	83.1		ug/L		83	50 - 115	
2-Chloronaphthalene	100	75.1		ug/L		75	34 - 102	
2-Chlorophenol	100	70.3		ug/L		70	20 - 106	
2-Methylnaphthalene	100	73.3		ug/L		73	34 - 98	
2-Methylphenol	100	73.4		ug/L		73	36 - 103	
2-Nitroaniline	100	82.9		ug/L		83	48 - 111	
2-Nitrophenol	100	77.2		ug/L		77	20 - 117	
3,3'-Dichlorobenzidine	100	61.5		ug/L		61	22 - 97	
3-Methylphenol + 4-Methylphenol	100	75.5		ug/L		76	35 - 106	
3-Nitroaniline	100	91.5		ug/L		92	51 - 116	
4,6-Dinitro-2-methylphenol	200	162		ug/L		81	28 - 139	
4-Bromophenyl phenyl ether	100	79.4		ug/L		79	42 - 113	
4-Chloro-3-methylphenol	100	78.0		ug/L		78	44 - 110	
4-Chloroaniline	100	86.8		ug/L		87	42 - 109	
4-Chlorophenyl phenyl ether	100	78.4		ug/L		78	38 - 115	
4-Nitroaniline	100	80.0		ug/L		80	50 - 116	
4-Nitrophenol	200	162		ug/L		81	26 - 132	
Acenaphthene	100	77.7		ug/L		78	37 - 107	
Acenaphthylene	100	76.7		ug/L		77	39 - 107	
Aniline	100	73.4		ug/L		73	27 - 115	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-424710/2-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 424710

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Anthracene	100	80.7		ug/L		81	42 - 120
Benzidine	100	ND		ug/L		9	5 - 150
Benzo[a]anthracene	100	72.4		ug/L		72	42 - 115
Benzo[a]pyrene	100	77.6		ug/L		78	41 - 117
Benzo[b]fluoranthene	100	79.0		ug/L		79	36 - 113
Benzo[g,h,i]perylene	100	76.6		ug/L		77	37 - 115
Benzo[k]fluoranthene	100	80.1		ug/L		80	42 - 122
Benzoic acid	100	77.0		ug/L		77	15 - 121
Benzyl alcohol	100	76.9		ug/L		77	39 - 106
bis (2-chloroisopropyl) ether	100	71.6		ug/L		72	38 - 104
Bis(2-chloroethoxy)methane	100	74.2		ug/L		74	47 - 104
Bis(2-chloroethyl)ether	100	69.8		ug/L		70	42 - 99
Bis(2-ethylhexyl) phthalate	100	77.9		ug/L		78	43 - 124
Butyl benzyl phthalate	100	77.2		ug/L		77	44 - 122
Chrysene	100	74.3		ug/L		74	42 - 118
Dibenz(a,h)anthracene	100	72.0		ug/L		72	40 - 114
Dibenzofuran	100	77.4		ug/L		77	37 - 113
Diethyl phthalate	100	79.4		ug/L		79	51 - 120
Dimethyl phthalate	100	82.7		ug/L		83	49 - 113
Di-n-butyl phthalate	100	81.4		ug/L		81	47 - 125
Di-n-octyl phthalate	100	76.3		ug/L		76	42 - 125
Fluoranthene	100	79.0		ug/L		79	44 - 119
Fluorene	100	79.2		ug/L		79	39 - 116
Hexachlorobenzene	100	78.6		ug/L		79	43 - 112
Hexachlorobutadiene	100	60.2		ug/L		60	14 - 77
Hexachlorocyclopentadiene	100	57.5		ug/L		57	10 - 77
Hexachloroethane	100	58.9		ug/L		59	13 - 75
Indeno[1,2,3-cd]pyrene	100	76.6		ug/L		77	35 - 116
Isophorone	100	78.5		ug/L		78	48 - 107
Naphthalene	100	69.7		ug/L		70	33 - 95
Nitrobenzene	100	71.2		ug/L		71	42 - 99
N-Nitrosodimethylamine	100	66.8		ug/L		67	35 - 96
N-Nitrosodi-n-propylamine	100	77.5		ug/L		77	44 - 111
N-Nitrosodiphenylamine	100	79.5		ug/L		79	46 - 116
Pentachlorophenol	200	166		ug/L		83	26 - 136
Phenanthrene	100	79.3		ug/L		79	43 - 120
Phenol	100	68.2		ug/L		68	25 - 99
Pyrene	100	76.7		ug/L		77	43 - 119

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	80		40 - 120
2-Fluorobiphenyl	75		50 - 120
2-Fluorophenol (Surr)	64		30 - 120
Nitrobenzene-d5 (Surr)	73		45 - 120
Phenol-d6 (Surr)	71		35 - 120
Terphenyl-d14 (Surr)	77		10 - 150

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-424710/3-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 424710

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Added	Result	Qualifier							
1,2,4-Trichlorobenzene	100	68.1		ug/L	68	25 - 84		3	35	
1,2-Dichlorobenzene	100	66.8		ug/L	67	24 - 85		6	35	
1,2-Diphenylhydrazine(as Azobenzene)	101	86.5		ug/L	86	44 - 113		4	35	
1,3-Dichlorobenzene	100	63.9		ug/L	64	20 - 80		5	35	
1,4-Dichlorobenzene	100	64.5		ug/L	64	22 - 81		6	35	
2,4,5-Trichlorophenol	100	78.3		ug/L	78	24 - 121		0	35	
2,4,6-Trichlorophenol	100	80.4		ug/L	80	20 - 121		1	35	
2,4-Dichlorophenol	100	77.3		ug/L	77	23 - 113		2	35	
2,4-Dimethylphenol	100	78.5		ug/L	79	39 - 94		3	35	
2,4-Dinitrophenol	200	172		ug/L	86	23 - 134		6	35	
2,4-Dinitrotoluene	100	85.4		ug/L	85	54 - 115		7	35	
2,6-Dinitrotoluene	100	84.9		ug/L	85	50 - 115		2	35	
2-Chloronaphthalene	100	75.9		ug/L	76	34 - 102		1	35	
2-Chlorophenol	100	70.4		ug/L	70	20 - 106		0	35	
2-Methylnaphthalene	100	76.8		ug/L	77	34 - 98		5	35	
2-Methylphenol	100	74.1		ug/L	74	36 - 103		1	35	
2-Nitroaniline	100	85.4		ug/L	85	48 - 111		3	35	
2-Nitrophenol	100	79.6		ug/L	80	20 - 117		3	35	
3,3'-Dichlorobenzidine	100	43.8		ug/L	44	22 - 97		33	35	
3-Methylphenol + 4-Methylphenol	100	76.0		ug/L	76	35 - 106		1	35	
3-Nitroaniline	100	76.3		ug/L	76	51 - 116		18	35	
4,6-Dinitro-2-methylphenol	200	165		ug/L	83	28 - 139		2	35	
4-Bromophenyl phenyl ether	100	80.5		ug/L	81	42 - 113		1	35	
4-Chloro-3-methylphenol	100	83.0		ug/L	83	44 - 110		6	35	
4-Chloroaniline	100	68.0		ug/L	68	42 - 109		24	35	
4-Chlorophenyl phenyl ether	100	81.7		ug/L	82	38 - 115		4	35	
4-Nitroaniline	100	78.7		ug/L	79	50 - 116		2	35	
4-Nitrophenol	200	179		ug/L	89	26 - 132		10	35	
Acenaphthene	100	81.8		ug/L	82	37 - 107		5	35	
Acenaphthylene	100	78.9		ug/L	79	39 - 107		3	35	
Aniline	100	69.7		ug/L	70	27 - 115		5	35	
Anthracene	100	83.3		ug/L	83	42 - 120		3	35	
Benzidine	100	47.3 *		ug/L	47	5 - 150		139	35	
Benzo[a]anthracene	100	75.5		ug/L	76	42 - 115		4	35	
Benzo[a]pyrene	100	79.7		ug/L	80	41 - 117		3	35	
Benzo[b]fluoranthene	100	80.6		ug/L	81	36 - 113		2	35	
Benzo[g,h,i]perylene	100	79.4		ug/L	79	37 - 115		4	35	
Benzo[k]fluoranthene	100	81.4		ug/L	81	42 - 122		2	35	
Benzoic acid	100	81.2		ug/L	81	15 - 121		5	35	
Benzyl alcohol	100	77.8		ug/L	78	39 - 106		1	35	
bis (2-chloroisopropyl) ether	100	74.8		ug/L	75	38 - 104		4	35	
Bis(2-chloroethoxy)methane	100	76.6		ug/L	77	47 - 104		3	35	
Bis(2-chloroethyl)ether	100	71.7		ug/L	72	42 - 99		3	35	
Bis(2-ethylhexyl) phthalate	100	80.6		ug/L	81	43 - 124		3	35	
Butyl benzyl phthalate	100	79.5		ug/L	79	44 - 122		3	35	
Chrysene	100	77.1		ug/L	77	42 - 118		4	35	
Dibenz(a,h)anthracene	100	75.1		ug/L	75	40 - 114		4	35	

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-424710/3-A

Matrix: Water

Analysis Batch: 425435

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 424710

%Rec.

RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibenzofuran	100	80.6		ug/L	81	37 - 113	4	35	
Diethyl phthalate	100	83.3		ug/L	83	51 - 120	5	35	
Dimethyl phthalate	100	84.6		ug/L	85	49 - 113	2	35	
Di-n-butyl phthalate	100	86.8		ug/L	87	47 - 125	6	35	
Di-n-octyl phthalate	100	80.2		ug/L	80	42 - 125	5	35	
Fluoranthene	100	85.2		ug/L	85	44 - 119	8	35	
Fluorene	100	83.0		ug/L	83	39 - 116	5	35	
Hexachlorobenzene	100	80.2		ug/L	80	43 - 112	2	35	
Hexachlorobutadiene	100	62.1		ug/L	62	14 - 77	3	35	
Hexachlorocyclopentadiene	100	60.6		ug/L	61	10 - 77	5	35	
Hexachloroethane	100	60.8		ug/L	61	13 - 75	3	35	
Indeno[1,2,3-cd]pyrene	100	79.2		ug/L	79	35 - 116	3	35	
Isophorone	100	81.3		ug/L	81	48 - 107	4	35	
Naphthalene	100	73.6		ug/L	74	33 - 95	5	35	
Nitrobenzene	100	74.4		ug/L	74	42 - 99	4	35	
N-Nitrosodimethylamine	100	69.8		ug/L	70	35 - 96	4	35	
N-Nitrosodi-n-propylamine	100	78.8		ug/L	79	44 - 111	2	35	
N-Nitrosodiphenylamine	100	79.4		ug/L	79	46 - 116	0	35	
Pentachlorophenol	200	174		ug/L	87	26 - 136	5	35	
Phenanthrene	100	82.2		ug/L	82	43 - 120	4	35	
Phenol	100	67.9		ug/L	68	25 - 99	0	35	
Pyrene	100	79.5		ug/L	80	43 - 119	4	35	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surrogate)	82		40 - 120
2-Fluorobiphenyl	78		50 - 120
2-Fluorophenol (Surrogate)	64		30 - 120
Nitrobenzene-d5 (Surrogate)	76		45 - 120
Phenol-d6 (Surrogate)	70		35 - 120
Terphenyl-d14 (Surrogate)	79		10 - 150

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-424330/1-A

Matrix: Water

Analysis Batch: 424557

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 424330

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.49	ug/L	08/19/17 07:53	08/21/17 18:03		1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surrogate)	73		36 - 90			08/19/17 07:53	08/21/17 18:03	1

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Lab Sample ID: LCS 440-424330/2-A

Matrix: Water

Analysis Batch: 424557

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 424330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	1.95	1.47		ug/L		75	36 - 120
Surrogate							
Surrogate	%Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8 (Surr)	73		36 - 90				

Lab Sample ID: LCSD 440-424330/3-A

Matrix: Water

Analysis Batch: 424557

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 424330

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
1,4-Dioxane	1.97	1.44		ug/L		73	36 - 120	2
Surrogate								
Surrogate	%Recovery	LCSD Qualifier	Limits					
1,4-Dioxane-d8 (Surr)	75		36 - 90					

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-425034/1

Matrix: Water

Analysis Batch: 425034

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	mg/L			08/23/17 11:19	1

Lab Sample ID: LCS 440-425034/2

Matrix: Water

Analysis Batch: 425034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Suspended Solids	1000	999		mg/L		100	85 - 115

Lab Sample ID: 440-190742-B-1 DU

Matrix: Water

Analysis Batch: 425034

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Suspended Solids	2200		2120		mg/L		2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-190514-M-6 DU

Matrix: Water

Analysis Batch: 424501

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH	8.1		8.1		SU		0.1	2

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-424512/1-A

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 424512

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050	mg/L		08/21/17 12:46	08/21/17 17:22	1

Lab Sample ID: LCS 440-424512/2-A

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Sulfide, Dissolved	0.490	0.449		mg/L		92	80 - 120

Lab Sample ID: LCSD 440-424512/3-A

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Sulfide, Dissolved	0.490	0.459		mg/L		94	80 - 120	2	20

Lab Sample ID: 440-190535-2 MS

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Water Grab

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Sulfide, Dissolved	ND	F1 HF	0.490	0.325	F1 HF	mg/L		66	70 - 130

Lab Sample ID: 440-190535-2 MSD

Matrix: Water

Analysis Batch: 424594

Client Sample ID: Water Grab

Prep Type: Dissolved

Prep Batch: 424512

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Sulfide, Dissolved	ND	F1 HF	0.490	0.347	HF	mg/L		71	70 - 130	6	30

Method: SM 5220D - COD

Lab Sample ID: MB 440-424545/3

Matrix: Water

Analysis Batch: 424545

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	mg/L			08/21/17 14:59	1

Lab Sample ID: LCS 440-424545/4

Matrix: Water

Analysis Batch: 424545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chemical Oxygen Demand	200	197		mg/L		98	90 - 110

TestAmerica Irvine

QC Sample Results

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: 440-190495-A-1 MS

Matrix: Water

Analysis Batch: 424545

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
Chemical Oxygen Demand	ND		200	200		mg/L		93	70 - 120	

Lab Sample ID: 440-190495-A-1 MSD

Matrix: Water

Analysis Batch: 424545

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier						
Chemical Oxygen Demand	ND		200	203		mg/L		94	70 - 120	1	15

QC Association Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

GC/MS VOA

Analysis Batch: 424347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2 - RA	Water Grab	Total/NA	Water	8260B	
MB 440-424347/4	Method Blank	Total/NA	Water	8260B	
LCS 440-424347/6	Lab Control Sample	Total/NA	Water	8260B	
440-190535-2 MS	Water Grab	Total/NA	Water	8260B	
440-190535-2 MSD	Water Grab	Total/NA	Water	8260B	

Analysis Batch: 424411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8260B	
MB 440-424411/4	Method Blank	Total/NA	Water	8260B	
LCS 440-424411/5	Lab Control Sample	Total/NA	Water	8260B	
440-190394-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-190394-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 424413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8260B	
MB 440-424413/4	Method Blank	Total/NA	Water	8260B	
LCS 440-424413/5	Lab Control Sample	Total/NA	Water	8260B	
440-190411-C-2 MS	Matrix Spike	Total/NA	Water	8260B	
440-190411-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 424330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	3520C	
MB 440-424330/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-424330/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-424330/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 424557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8270C SIM	424330
MB 440-424330/1-A	Method Blank	Total/NA	Water	8270C SIM	424330
LCS 440-424330/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	424330
LCSD 440-424330/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	424330

Prep Batch: 424710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	3520C	
MB 440-424710/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-424710/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-424710/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 425435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	8270C	424710
MB 440-424710/1-A	Method Blank	Total/NA	Water	8270C	424710
LCS 440-424710/2-A	Lab Control Sample	Total/NA	Water	8270C	424710

TestAmerica Irvine

QC Association Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

GC/MS Semi VOA (Continued)

Analysis Batch: 425435 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 440-424710/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	424710

General Chemistry

Analysis Batch: 424501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Total/NA	Water	SM 4500 H+ B	
440-190514-M-6 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 424512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Dissolved	Water	SM 4500 S2 B	
MB 440-424512/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	
LCS 440-424512/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
LCSD 440-424512/3-A	Lab Control Sample Dup	Dissolved	Water	SM 4500 S2 B	
440-190535-2 MS	Water Grab	Dissolved	Water	SM 4500 S2 B	
440-190535-2 MSD	Water Grab	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 424545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-1	Water Composite	Total/NA	Water	SM 5220D	
MB 440-424545/3	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-424545/4	Lab Control Sample	Total/NA	Water	SM 5220D	
440-190495-A-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-190495-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	

Analysis Batch: 424594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-2	Water Grab	Dissolved	Water	SM 4500 S2 D	424512
MB 440-424512/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	424512
LCS 440-424512/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	424512
LCSD 440-424512/3-A	Lab Control Sample Dup	Dissolved	Water	SM 4500 S2 D	424512
440-190535-2 MS	Water Grab	Dissolved	Water	SM 4500 S2 D	424512
440-190535-2 MSD	Water Grab	Dissolved	Water	SM 4500 S2 D	424512

Analysis Batch: 425034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-190535-1	Water Composite	Total/NA	Water	SM 2540D	
MB 440-425034/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 440-425034/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-190742-B-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

☒	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.

Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-190535-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-18 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17 *
Nevada	State Program	9	CA015312018-1	07-31-18 *
New Mexico	State Program	6	N/A	01-29-18 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine

Chain of Custody Record

Client Information		Sampler: <i>Felipe Reyes</i>	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-117441-20871.1
Client Contact: Eric Iverson		Phone: 714-651-2862	E-Mail: danielle.roberts@testamericainc.com		Page: Page 1 of 1
Company: de maximis, inc.					Job #:
Address: 1322 Scott Street, Suite 104		Due Date Requested:			Preservation Codes:
City: San Diego		TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: CA, 92106					
Phone: 949-453-1045(Tel) 949-453-1047(Fax)		PO #: Omega Chemical Wastewater			
Email: eiverson@ddmsinc.com		WO #:			
Project Name: Omega Chemical - ISCO/Composite & Grab		Project #: 44003641			
Site: California		SSOW#:			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)
					Field Filled Sample (Yes or No)
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Water Composite		8/17-18/17	08:00	C	Water
Water Grabs		8/18/17	08:00	G	Water
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Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-190535-1

Login Number: 190535

List Source: TestAmerica Irvine

List Number: 1

Creator: Avila, Stephanie 1

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	N/A	Not present	2
Sample custody seals, if present, are intact.	N/A	Not Present	3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

Attachment I

Other Data Collected this Quarter



● Dual Phase Extraction Well
 ● Observation Well/Piezometer

■ Former Omega Chemical
 Property Boundary
 □ OU-1 Boundary



Reviewed By: MH
 Drawn By: LEM
 Date: 11/13/2017

**Attachment I, Figure I-1
 Other Groundwater Data Locations
 Omega Chemical Superfund Site**

Attachment I, Table I-1
Other Groundwater Elevation Data Collected This Quarter
Omega Chemical Superfund Site
Third Quarter 2017

Well No.	Top of Casing Elevation (feet MSL)	Screen Interval (feet MSL)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
PZ-9	197.97	108.49 - 128.49	8/9/2017	85.80	112.17
OW11	200.06	100.52 - 120.52	8/10/2017	87.70	112.36
DPE-4	202.97	105.50 - 165.50	8/7/2017	92.15	110.82
DPE-5	201.77	104.36 - 164.36	8/7/2017	91.90	109.87
DPE-8	204.87	107.46 - 167.46	8/7/2017	90.50	114.37
DPE-9	199.06	101.59 - 161.59	8/7/2017	92.25	106.81
VE-7D	200.11	102.03 - 162.03	8/8/2017	86.15	113.96
VE-10D	198.8	100.66 - 160.66	8/8/2017	85.27	113.53
VE-11D	196.04	97.76 - 157.76	8/8/2017	79.70	116.34
VE-13D	192.99	94.72 - 154.72	8/8/2017	76.00	116.99

Notes:

Elevation data per California Coordinate System NADV88

btoc = below top of casing

Dry = No water detected, water detected below the screen interval, or water detected at or near total depth of well

MSL = mean sea level

Attachment I, Table I-2
Other Groundwater Analytical Data Collected This Quarter
Omega Chemical Superfund Site
Third Quarter 2017

Well ID / Screen Interval ¹	Sample Date	Sample Type	PCE	TCE	1,4DIOX	1,1,1-TCA	1,1-DCE	1,2-DCA	Freon 113	Freon 11	Freon 12
PZ-3 (69.8 - 89.8)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
PZ-9 (70 - 90)	8/9/2017	ORIG	1400	120	110 J-	1.0 U	200	24	650	160	1.0 U
OW11 (80 - 100)	8/10/2017	ORIG	170	39	0.15 JN	1.0 U	31	1.0 U	58	20	1.0 U
DPE-4 (40 - 100)	8/7/2017	ORIG	660	23	75 J-	2.0 U	4.2	9.4	61	3.7	2.0 U
DPE-5 (40 - 100)	8/7/2017	ORIG	160	12	6.9 J-	1.0 U	30	0.93 J	9.1	7.7	1.0 U
DPE-8 (40 - 100)	8/7/2017	ORIG	73	5.6	8.5 J-	1.0 U	1.6	0.58 J	24	2.7	1.0 U
DPE-9 (40 - 100)	8/7/2017	ORIG	480	28	37 J-	1.0 U	35	6.2	56	19	1.0 U
VE-7D (40 - 100)	8/7/2017	ORIG	120	39	0.12 J-	1.0 U	33	1.0 U	28	12	1.0 U
VE-10D (40 - 100)	8/7/2017	ORIG	660	64	16 J-	2.0 U	85	3.6	150	44	2.0 U
VE-11D (40 - 100)	8/7/2017	ORIG	1100	91	44 J-	2.0 U	140	12	150	51	2.0 U
VE-13D (40 - 100)	8/7/2017	ORIG	47	15	10 J-	1.0 U	21	3.1	11	1.0 U	1.0 U

Notes:

1. The screen interval units are feet below top of casing.

All results are in micrograms per liter (ug/L)

ORIG = primary sample

PCE = Tetrachloroethene; TCE = Trichloroethene; TCA = Trichloroethane; DCE = Dichloroethene;

Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane; Freon 11 = Trichlorofluoromethane;

Freon 12 = Dichlorodifluoromethane; DCA = Dichloroethane; 1,4DIOX = 1,4-dioxane

Dry = No water detected, water detected below the screen interval, or insufficient water to sample

U = not detected above reporting limit listed

J = results are qualified as estimated

J- = result is an estimated quantity, but may be biased low. See data validation report in Attachment E.

JN = quantitatively estimated and presumptively present

Attachment I, Table I-3
Other Groundwater Pumping Data Collected This Quarter
Omega Chemical Superfund Site
Third Quarter 2017

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate ¹ (gpm)	Average Flow Rate ² (gpm)	Mass Removed (lbs)
DPE-3	July 2017	220	22,819	1.73	0.51	
	August 2017	251	24,685	1.64	0.55	
	September 2017	293	26,017	1.48	0.60	
	3rd Quarter 2017	764	73,521	1.62	0.56	NA
DPE-4	July 2017	185	26,360	2.37	0.59	
	August 2017	240	28,934	2.01	0.65	
	September 2017	214	28,470	2.22	0.66	
	3rd Quarter 2017	639	83,763	2.20	0.63	0.53
DPE-5	July 2017	209	27,043	2.16	0.61	
	August 2017	218	28,714	2.20	0.64	
	September 2017	220	27,705	2.10	0.64	
	3rd Quarter 2017	646	83,462	2.15	0.63	0.14
DPE-8	July 2017	188	19,137	1.70	0.43	
	August 2017	222	19,966	1.50	0.45	
	September 2017	297	21,038	1.18	0.49	
	3rd Quarter 2017	706	60,141	1.46	0.45	0.05
DPE-9	July 2017	482	60,579	2.10	1.36	
	August 2017	716	59,279	1.38	1.33	
	September 2017	710	54,694	1.28	1.27	
	3rd Quarter 2017	1,908	174,552	1.59	1.32	0.89

Attachment I, Table I-3
Other Groundwater Pumping Data Collected This Quarter
Omega Chemical Superfund Site
Third Quarter 2017

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate ¹ (gpm)	Average Flow Rate ² (gpm)	Mass Removed (lbs)
VE-7D	July 2017	444	20,494	0.77	0.46	
	August 2017	192	10,411	0.91	0.23	
	September 2017	716	36,202	0.84	0.84	
	3rd Quarter 2017	1,351	67,107	0.84	0.51	0.12
VE-10D	July 2017	544	51,279	1.57	1.15	
	August 2017	222	17,731	1.33	0.40	
	September 2017	716	47,481	1.11	1.10	
	3rd Quarter 2017	1,482	116,491	1.34	0.88	0.91
VE-11D	July 2017	494	49,429	1.67	1.11	
	August 2017	217	19,225	1.47	0.43	
	September 2017	0	0	0	0	
	3rd Quarter 2017	711	68,654	1.05	0.51	0.86

Notes:

1. Operational flow rate calculated from total gallons processed in the month and hours the pump actually operated in the month.

2. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of pump uptime.

All extraction wells operate on/off based on water levels measured by pressure transducers installed in each well.

NA = no analytical data available, no mass calculation performed

hrs = hours

gal = gallons

gpm = gallons per minute